# DOCUMENT RESUME

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ABSTRACT

Designed as an accompaniment to college level macroeconomic lectures (see SO 011 937), this package contains materials for three approaches to the macroeconomics course. The course covers topics of basic macroeconomic concepts, income and expenditure determination, aggregate demand, unemployment and inflation, policy making, investment and expenditure, money, interest, and income, aggregate supply, and international macroeconomics. Required texts are: "Economics" (Bach), "Workbook and Study Guide" (Block and Dennert), "Economic Analysis and Policy" (Joseph and Seeber), "Macroeconomics: A Programmed Book" (Attiyeh, Lumsden, Bach), and "Economics" (McConnell). The three approaches are conventional, game, and TIPS (Teacher Information Processing System). All courses are comprised of 25 fifty-minute lectures. The conventional approach bases examinations on the lectures, texts, and the workbook and study guide. The games package contains a competitive computer game; the course requires five research reports in addition to midterm and final examinations. The TIPS package contains a course notebook which presents exercises selected to clarify lectures. In addition to examinations, assignments include 11 TIPS debriefing sessions. Materials relevant to all three approaches are provided: a pre-test of macroeconomics comprehension, student information questionnaire, psychological inventory, continuous and end-of-quarter student evaluation questionnaire, instructor questionnaire, three midterms and one final examination. (KC)

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# Economic Evaluation of New Technologies in Higher Education.

N.I.E. Report Phase 1,

Volumes 4 and 5 of 7

March 1978

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THE ESMEE FAIRBAIRN RESEARCH CENTRE, HERIOT-WATT UNIVERSITY, EDINBURGH.

SO 011 935

The Esmée Fairbairn Research Centre, TEFRC, was established in 1970 and grew out of the Economics Education Project which was concerned with analysing how economics was being taught in schools, polytechnics, colleges and universities in the United Kingdom. Since its establishment, the Centre has undertaken several studies in the United Kingdom and United States of America, focussing mainly on efficiency in higher education.

Beginning in 1975, the principal research activity of TEFRC will be evaluating the cost effectiveness of alternative systems of instruction in higher education and assessing the likelihood of their diffusion in different institutional settings.

The Research Centre is part of the Department of Economics at Heriot-Watt University. The Director is Professor Keith G Lumsden.

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Micro Core Courses (cont'd)

2.3 TIPS Course
2.4 Cases-TIPS Course

Volume 4: Course Packages (cont'd)

Macro Core Courses

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1 Economic Concepts, Issues and Tools
2 Demand
3 Supply
4 Price and Output Determination in Markets
5 Marginal Equivalency Conditions and Economic Efficiency
6 The Organisation of Industries
7 Public Goods and Externalities
8 Income Distribution
9 International Trade

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1 Basic Macroeconomic Concepts
2 A Simple Model of Income and Expenditure Determination
3 Aggregate Demand, Unemployment, and Inflation
4 Using the Expanded Model for Policy Making
5 Investment Expenditure
6 Money and Interest
7 Money, Interest, and Income
8 Aggregate Supply
9 International Macroeconomics

# MACRO CORE COURSE

## 2.5 CONVENTIONAL COURSE PACKAGE

2.5.1 Macro Units

1 Basic Macroeconomic Concepts
2 A Simple Model of Income and Expenditure Determination
3 Aggregate Demand, Unemployment, and Inflation
4 Using the Expanded Model for Policy Making
5 Investment Expenditure
6 Money and Interest
7 Money, Interest, and Income
8 Aggregate Supply
9 International Macroeconomics

2.5.2 Lectures

25 x 50 minute lectures

2.5.3 Texts

*Economics*, (Bach), *Workbook and Study Guide*, (Block and Dennert), *Economic Analysis and Policy*, (Joseph and Seeber)

2.5.4 Assignments

1 Mathematics Survey
2 Workbook
3 First Midterm Examination (50 minutes - Objective)
4 Second Midterm Examination (50 minutes - Objective)
5 Third Midterm Examination (2 hours - Essays)
6 Final Examination (3 hours - Objective + Essays)

2.5.5 Tutorials

1 Mathematics Tutorial
2 9 x 50 minute Tutorials

2.5.6 Research Requirements

1 Student Information Questionnaire
2 Pre-Test of Macroeconomics Comprehension
3 Psychological Inventory
4 Continuous Student Evaluation Questionnaire
5 End of Quarter Student Evaluation Questionnaire
6 Instructor Questionnaire

| | Lecture 1 | Lecture 2 | Lecture 3 |
|---|---|---|---|
| LECTURE CONTENT | Introduction and Overview<br>MACRO UNIT 1: BASIC MACROECONOMIC CONCEPTS<br>1.1 Underlying Microeconomic Behavior | 1.2 National Income and Product Accounting | 1.3 Nominal and Real GNP; Actual and Potential GNP |
| TEXT | Bach: *Economics*, Ch 1, 2, 3 | *Economics*, Ch 7, 8 | *Economics*, Ch 9 |
| READINGS | Selected Readings | | |
| ASSIGNMENTS | Workbook<br>Student Information Questionnaire<br>Pre-Test of Macroeconomics Comprehension<br>Psychological Inventory<br>Basic Mathematical Survey | | |
| TUTORIALS | | Remedial Mathematics Tutorial | Macro Unit 1, 1.1 - 1.3 |

|  | Lecture 4 | Lecture 5 | Lecture 6 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 1: BASIC MACROECONOMIC CONCEPTS (cont'd)<br>1.4 Economic Policy | MACRO UNIT 2: A SIMPLE MODEL OF INCOME AND EXPENDITURE DETERMINATION<br>2.1 The Structure of the Model | 2.2 Solving the Model |
| TEXT | *Economics*, Ch 7 | *Economics*, Ch 10 | *Economics*, Ch 11 |
| READINGS | Selected Readings |  |  |
| ASSIGNMENTS | Workbook |  |  |
| TUTORIALS |  |  | Macro Unit 1, 1.4<br>Macro Unit 2, 2.1 - 2.2 |

|  | Lecture 7 | Lecture 8 | Lecture 9 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 2: A SIMPLE MODEL OF INCOME AND EXPENDITURE DETERMINATION (cont'd)<br>2.3 Interpreting the Model | MACRO UNIT 3: AGGREGATE DEMAND, UNEMPLOYMENT, AND INFLATION<br>3.1 Aggregate Demand Relative to Potential GNP | 3.2 Unemployment and Inflation |
| TEXT | Economics, Ch 11 | Economics, Ch 12, 13 | Economics, Ch 14, 19 |
| READINGS | Selected Readings |  |  |
| ASSIGNMENTS | Workbook<br>First Midterm Examination (Objective) |  |  |
| TUTORIALS |  |  | Macro Unit 2, 2.3<br>Macro Unit 3, 3.1 - 3.2 |

|  | Lecture 10 | Lecture 11 | Lecture 12 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 4: USING THE EXPANDED MODEL FOR POLICY MAKING<br>4.1 Fiscal Policy | 4.2 The Balanced Budget Multiplier | 4.3 Choosing the Size of the Budget Deficit or Surplus |
| TEXT | *Economics*, Ch 15 | *Economics*, Ch 11, 16 | *Economics*, Ch 11, 16 |
| READINGS | Selected Reading |  |  |
| ASSIGNMENTS | Workbook |  |  |
| TUTORIALS |  |  | Macro Unit 4, 4.1 - 4.3 |

|  | Lecture 13 | Lecture 14 | Lecture 15 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 4: USING THE EXPANDED MODEL FOR POLICY MAKING (cont'd)<br>4.4 Endogenous Taxes | MACRO UNIT 5: INVESTMENT EXPENDITURE<br>5.1 Investment in the American Economy<br>5.2 Investment Expenditure and the Rate of Interest | 5.3 Other Determinants of Investment Expenditure |
| TEXT | Economics, Ch 11 | Economics, Ch 12 | Economics, Ch 12 |
| READINGS | Selected Readings |  |  |
| ASSIGNMENTS | Workbook<br>Continuous Student Evaluation Questionnaire<br>Second Midterm Examination (Objective) |  |  |
| TUTORIALS |  |  | Macro Unit 4, 4.4<br>Macro Unit 5, 5.1 - 5.3 |

| | Lecture 16 | Lecture 17 | Lecture 18 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 6: MONEY AND INTEREST<br>6.1 Saving and Wealth | 6.2 Money and Financial Intermediaries | 6.3 The Demand for Money |
| TEXT | *Economics*, Ch 17 | *Economics*, Ch 13 | *Economics*, Ch 13 |
| READINGS | Selected Readings | | |
| ASSIGNMENTS | Workbook | | |
| TUTORIALS | | | Macro Unit 6, 6.1 - 6.3 |

| | Lecture 19 | Lecture 20 | Lecture 21 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 7: MONEY, INTEREST, AND INCOME<br>7.1 General Equilibrium of Goods and Financial Markets | 7.2 Monetary Policy | MACRO UNIT 8: AGGREGATE SUPPLY<br>8.1 The Labor Market |
| TEXT | Economics, Ch 13 | Economics, Ch 18 | Economics, Ch 14, 43, 44, 45 |
| READINGS | Selected Readings | | |
| ASSIGNMENTS | Workbook<br>Third Midterm Examination (Essays) | | |
| TUTORIALS | | | Macro Unit 7, 7.1 - 7.2<br>Macro Unit 8, 8.1 |

| | Lecture 22 | Lecture 23 | Lecture 24 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 8: AGGREGATE SUPPLY (cont'd)<br>8.2 The Phillips Curve | MACRO UNIT 9: INTERNATIONAL MACROECONOMICS<br>9.1 The Balance of Payments | 9.2 The Income-Expenditure Model with Foreign Trade |
| TEXT | *Economics*, Ch 19 | *Economics*, Ch 39 | *Economics*, Ch 41 |
| READINGS | Selected Readings | | |
| ASSIGNMENTS | Workbook | | |
| TUTORIALS | | | Macro Unit 8, 8.2<br>Macro Unit 9, 9.1 - 9.2 |

## Lecture 25

| | |
|---|---|
| LECTURE CONTENT | MACRO UNIT 9: INTERNATIONAL MACROECONOMICS (cont'd)<br>9.3 International Monetary Arrangements |
| TEXT | *Economics*, Ch 42 |
| READINGS | Selected Readings |
| ASSIGNMENTS | Workbook<br>End of Quarter Student Evaluation Questionnaire<br>Final Examination |
| TUTORIALS | Macro Unit 9, 9.3 |

Answer Sheet for First Midterm Examination

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**First name:** **Last name:**

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Please circle the letter which you think corresponds to the correct answer. Erase completely any answer you wish to change.

| | | | |
|---|---|---|---|
| Q. 1 a b c d | Q.11 a b c d | Q.21 a b c d | Q.31 a b c d |
| Q. 2 a b c d | Q.12 a b c d | Q.22 a b c d | Q.32 a b c d |
| Q. 3 a b c d | Q.13 a b c d | Q.23 a b c d | Q.33 a b c d |
| Q. 4 a b c d | Q.14 a b c d | Q.24 a b c d | Q.34 a b c d |
| Q. 5 a b c d | Q.15 a b c d | Q.25 a b c d | Q.35 a b c d |
| Q. 6 a b c d | Q.16 a b c d | Q.26 a b c d | |
| Q. 7 a b c d | Q.17 a b c d | Q.27 a b c d | |
| Q. 8 a b c d | Q.18 a b c d | Q.28 a b c d | |
| Q. 9 a b c d | Q.19 a b c d | Q.29 a b c d | |
| Q.10 a b c d | Q.20 a b c d | Q.30 a b c d | |

1. The sum of all expenditures for final goods and services is the equivalent of

   a all income paid out as wages and salaries.

   b the amount of money in circulation.

   c the total of all "values added".

   d disposable income.

2. The concept of "income" refers to

   a the total receipts for all final goods and services.

   b the payments to all inputs.

   c the value of intermediate goods and services.

   d the payments made for the resources which owners supply in the production of output.

3. Gross National Product equals

   a gross national expenditure but not gross national income.

   b the sum of investment and consumption expenditure.

   c gross government expenditure.

   d both gross national expenditure and gross national income.

4. The change in real GNP and the change in nominal GNP differ because the change in real GNP

   a excludes capital consumption allowances.

   b is adjusted for changes in the price level.

   c is adjusted for changes in the volume of intermediate transactions.

   d is adjusted for changes in product quality.

5. If a price index has a value of 126 in the current year, then

   a prices are 126 percent higher on average than in the base year.

   b prices are .126 times higher on average than in the base year.

   c prices are 26 percent higher on average than in the base year.

   d money (nominal) GNP must be inflated to determine real GNP.

6. A food cooperative recently argued that the standard of living of its members was falling. A critic argued this could not be true because the members had been acquiring significant increases in their nominal incomes. Could the critic be correct?

   a Yes, if consumer price increases are less than increases in nominal incomes.

   b Yes, if the coop members initially have large nominal incomes.

   c No. Real incomes may fall if consumer price increases are less than increases in nominal incomes.

   d Yes. Real incomes will rise as nominal incomes rise, causing greater purchasing power.

7. The rate of output that would result if the economy's labor were fully utilized is called the

   a GNP gap.

   b labor productivity.

   c actual GNP.

   d potential GNP.

8. An Economics 1 student, employed as an intern at the Council of Economic Advisors, provided his boss with a graph showing Actual GNP exceeding Potential GNP for a period of six months over the period 1955-1977. Is it possible for his graph to be correct?

a Yes, because there is a systematic bias during periods of full employment for real (deflated) actual GNP to be overstated when referenced to nominal potential GNP.

b Yes, because conceptually potential GNP can be exceeded.

c No, since there is a systematic bias during periods of full employment for nominal actual GNP to be overstated when referenced to real (deflated) potential GNP.

d No, because it is not conceptually possible to have more than the potential level of GNP.

9. The schedule of "Potential GNP" can shift upward if there is

a an increase in the level of "structural" unemployment.

b an increase in the proportion of the labor force which is productively employed, unemployment rates remaining constant.

c a decrease in the level of "frictional" unemployment.

d a decrease in the ratio of output per laborer, adjusted for changes in the utilization of capital.

10. The unemployment rate in Washington D.C. is 11%. In order to stimulate employment, the government has increased expenditures on various work programs and subsidized existing job training programs. In reviewing the above economic policy, identify the government's "target variable".

a unemployment rate

b work programs

c government expenditures

d job training programs

11. The term "endogenous" variable refers to

a a variable in a model whose values are determined outside the model.

b a variable in a model the behaviour of which the model is intended to explain and the values of which are determined within the model.

c a term in a model the value of which is constant and does not depend on the values of the other variables in the model.

d a term in a model which holds true by definition.

12. To say that a structural relationship is an identity means that

a it describes the behavior of some agents in the economy with respect to the variables involved.

b it describes how the value of the exogenous variables depends on that of the endogenous variables.

c all of the variables in the model are constant.

d the structural relationship is true by definition.

13. Define a reduced form equation.

a An equation derived from the structural form of a model, which expresses an endogenous variable in terms of known exogenous variables and parameters.

b A relation describing how the value of one endogenous variable depends on that of other endogenous and/or exogenous variables.

c An equation derived from the structural form of a model, which expresses the values of the endogenous variables.

d An equation which has as many exogenous variables as it does endogenous variables.

14. The solution to a model is

a a set of relationships such that the number of endogenous variables is equal to the number of equations in the model.

b a set of relationships such that there is a complete and logically consistent set of equations contained in the model.

c a set of values for the endogenous variables for which all the relationships making up the model will hold true.

d a set of values for the exogenous variables for which all the relationships making up the model will hold true.

15. The consumption schedule shows

a that consumption depends primarily on the level of business investment.

b that households consume more when interest rates are low.

c that the MPC increases in proportion to NNP.

d the amounts households plan or intend to consume at various possible income levels.

16. Using C to denote consumption expenditure and Yd to denote disposable personal income, which of the following equations expresses the usual consumption relationship?

(assuming $a,b>0$)

a $C = aY_d$

b $C = a - bY_d$

c $C = a + bY_d$

d $C = bY_d - a$

17. In the consumption equation, identify the parameters.

a $a$, $Y_d$

b $a$, $b$

c $C$, $Y_d$

d $a$

18. The MPC can be defined as

a that fraction of a given total income which is consumed.

b that fraction of a given total income which is not consumed.

c that fraction of a change in income which is spent.

d that fraction of a change in income which is not spent.

19. If the consumption schedule is a straight line, it can be concluded that

a the multiplier is one.

b the multiplier is measured by the ratio $C/Y_d$.

c the MPC is constant at various levels of income.

d the MPC increases as income rises.

In analyzing the determination of national income and expenditure, it is necessary to begin with a highly simplified model. The variables included are consumption (C), government expenditure (G), net taxes (T), investment expenditure (I), disposable personal income ($Y_d$), gross national expenditure (E), and gross national income (Y), where G, T, and I are determined outside the model. The following explicit equations describe the model.

(1) $C = a + bY_d$

(2) $Y_d = Y - T$

(3) $E = C + I + G$

(4) $Y = E$

20. Which of the above structural equations is a behavioral equation?

a 1

b 2

c 3

d 4

21. In terms of specification, this model

a has fewer structural equations than endogenous variables.

b has more structural equations than endogenous variables.

c has the same number of behavioral equations as endogenous variables.

d has as many structural equations as it has endogenous variables.

22. The 45-degree line on a chart which relates total expenditure and income shows

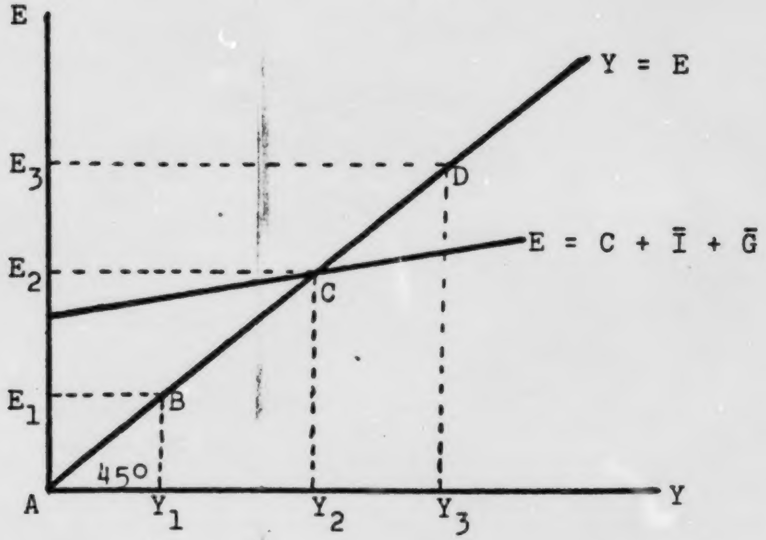
a the amounts households will plan to consume at each level of income.

b all points where the MPC is constant.

c all points at which saving and income are equal.

d all points at which total expenditure and income are equal.

23. Given the following graph, identify that point which represents a combination of E and Y for which all four structural equations will hold true.



a A

b B

c C

d D

24. Suppose $C = \$120 + 0{,}6Y_d$, $I = \$50$, $G = \$200$, and $T = 0$, the equilibrium level of income is

a $1350

b $925

c $850

d $370

25. From the data above, the equilibrium value of consumption is

a $380

b $485

c $675

d $750

26. If initially $C = \$200 + 0.8(Y-T)$, $I = \$125$, $T = \$25$ and $G = \$250$, what is the equilibrium level of income?

a $2875

b $2775

c $2750

d $2400

27. What would be the change in equilibrium income caused by a $30 decrease in investment?

a -150

b - 50

c + 50

d +150

28. What would be the new equilibrium income level if taxes were reduced from $25 to £15?

a $2950

b $2935

c $2815

d $2735

29. If $C = \$80 + 0.6Y_d$, then the marginal propensity to consume is

a 2.50

b 1.67

c 0.60

d 0.40

30. If $Y_d$ is equal to $2000 in question 29, then consumption will be

a $800

b $1080

c $1200

d $1280

31. The multiplier

a is measured by the slope of the consumption schedule.

b only occurs when intended investment increases.

c can be found by taking the reciprocal of the MPC, i.e. 1/MPC.

d can be found by taking the reciprocal of 1 - MPC, i.e. 1/(1-MPC).

32. If the MPC = 0.8, then an increase in government expenditure of $50 will increase equilibrium income by

a $250

b $90

c $50

d cannot be determined from the information

33. To say that there has been unintended inventory disinvestment means that

a there has been a reduction of producer stocks of inventories of final goods below normal levels in order to meet sales.

b there has been an increase of producer stocks of inventories of final goods because of a reduction of sales.

c desired consumption, investment, or government expenditures have not been made because the commodities were unavailable.

d increases in investment expenditures have not been made because producer stocks of inventories of final goods are too great.

34. In question 33, which one of the following best defines unfilled orders?

a 1

b 2

c 3

d 4

35. Autonomous investment expenditure refers to that part of investment that

a relates only to inventories.

b is made by the government sector.

c is directly related to the level of economic activity.

d is not directly related to the level of economic activity.

## MACRO CORE COURSE

## 2.6 GAMES COURSE PACKAGE

2.6.1 Macro Units

1. Basic Macroeconomic Concepts
2. A Simple Model of Income and Expenditure Determination
3. Aggregate Demand, Unemployment, and Inflation
4. Using the Expanded Model for Policy Making
5. Investment Expenditure
6. Money and Interest
7. Money, Interest, and Income
8. Aggregate Supply
9. International Macroeconomics

2.6.2 Lectures

25 x 50 minute Lectures

2.6.3 Texts

*Macroeconomics: A Programmed Book*, (Attiyeh, Lumsden, Bach), *Economics*, (Bach)

2.6.4 Assignments

1. Mathematics Survey
2. Economic Policy Game
3. 5 Research Reports
4. First Midterm Examination (50 minutes - Objective)
5. Second Midterm Examination (50 minute - Objective)
6. Third Midterm Examination (2 hours - Essays)
7. Final Examination

2.6.5 Tutorials

1. Mathematics Tutorial
2. 9 x 50 minute Tutorials

2.6.6 Research Requirements

1. Student Information Questionnaire
2. Pre-Test of Macroeconomics Comprehension
3. Psychological Inventory
4. Continuous Student Evaluation Questionnaire
5. End of Quarter Student Evaluation Questionnaire
6. Instructor Questionnaire

|  | Lecture 1 | Lecture 2 | Lecture 3 |
|---|---|---|---|
| LECTURE CONTENT | Introduction and Overview<br>Description of Macrosimulation Games (Economic Policy Game) and Research Reports<br>MACRO UNIT 1: BASIC MACROECONOMIC CONCEPTS<br>1.1 Underlying Microeconomic Behavior | 1.2 National Income and Product Accounting | 1.3 Nominal and Real GNP; Actual and Potential GNP |
| TEXT | Attiyeh, Lumsden, Bach: Macroeconomics, Ch 1, 2, 3<br>Bach: Economics, Ch 1, 2, 3 | Macroeconomics, Ch 4, 5, 6<br>Economics, Ch 7, 8 | Macroeconomics, Ch 7, 8, 9<br>Economics, Ch 9 |
| ASSIGNMENTS | Student Information Questionnaire<br>Pre-Test of Macroeconomics Comprehension<br>Psychological Inventory<br>Basic Mathematical Survey |  |  |
| TUTORIALS |  | Remedial Mathematics Tutorial | Macro Unit 1, 1.1 - 1.3 |

|  | Lecture 4 | Lecture 5 | Lecture 6 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 1: BASIC MACROECONOMIC CONCEPTS (cont'd)<br>1.4 Economic Policy | MACRO UNIT 2: A SIMPLE MODEL OF INCOME AND EXPENDITURE DETERMINATION<br>2.1 The Structure of the Model | 2.2 Solving the Model |
| TEXT | *Macroeconomics*, Ch 10, 11, 12 | *Economics*, Ch 10 | *Economics*, Ch 11 |
| ASSIGNMENTS | First Midterm Examination (Objective) | Play Phase 1 of the Economic Policy Game |  |
| TUTORIALS |  |  | Macro Unit 1, 1.4<br>Macro Unit 2, 2.1 - 2.2<br>Review First Midterm Examination |

| | Lecture 7 | Lecture 8 | Lecture 9 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 2: A SIMPLE MODEL OF INCOME AND EXPENDITURE DETERMINATION (cont'd)<br>2.3 Interpreting the Model | MACRO UNIT 3: AGGREGATE DEMAND, UNEMPLOYMENT, AND INFLATION<br>3.1 Aggregate Demand Relative to Potential GNP | 3.2 Unemployment and Inflation |
| TEXT | Economics, Ch 11 | Economics, Ch 2, 13 | Economics, Ch 14, 19 |
| ASSIGNMENTS | Research Report 1, Solving the Model | Play Phase 2 of Economic Policy Game | Research Report 2, Identifying the Phillips Curve |
| TUTORIALS | | | Macro Unit 2, 2.3<br>Macro Unit 3, 3.1 - 3.2<br>Reveiw Research Report 1 |

| | Lecture 10 | Lecture 11 | Lecture 12 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 4: USING THE EXPANDED MODEL FOR POLICY MAKING<br>4.1 Fiscal Policy | 4.2 The Balanced Budget Multiplier | 4.3 Choosing the Size of the Budget Deficit or Surplus |
| TEXT | *Economics*, Ch 15 | *Economics*, Ch 11, 16 | *Economics*, Ch 11, 16 |
| ASSIGNMENTS | Play Phase 3 of the Economic Policy Game | | Research Report 3, Measuring the Tax and Government Expenditure Multipliers |
| TUTORIALS | | | Macro Unit 4, 4.1 - 4.3<br>Review Research Report 2 |

|  | Lecture 13 | Lecture 14 | Lecture 15 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 4: USING THE EXPANDED MODEL FOR POLICY MAKING (cont'd)<br>4.4 Endogenous Taxes | MACRO UNIT 5: INVESTMENT EXPENDITURE<br>5.1 Investment in the American Economy<br>5.2 Investment Expenditure and the Rate of Interest | 5.3 Other Determinants of Investment Expenditure |
| TEXT | Economics, Ch 11 | Economics, Ch 12 | Economics, Ch 12 |
| ASSIGNMENTS | Continuous Student Evaluation Questionnaire<br>Second Midterm Examination (Objective) |  |  |
| TUTORIALS |  |  | Macro Unit 4, 4.4<br>Macro Unit 5, 5.1 - 5.3<br>Review Research Report 3 |

| | Lecture 16 | Lecture 17 | Lecture 18 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 6: MONEY AND INTEREST<br>6.1 Saving and Wealth | 6.2 Money and Financial Intermediaries | 6.3 The Demand for Money |
| TEXT | *Economics*, Ch 17 | *Economics*, Ch 13 | *Economics*, Ch 13 |
| ASSIGNMENTS | Play Phase 4 of the Economic Policy Game | | Research Report 4, The Structural Form and Policy Evaluation |
| ASSIGNMENTS | | | Macro Unit 6, 6.1 - 6.3 |

|  | Lecture 19 | Lecture 20 | Lecture 21 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 7: MONEY, INTEREST, AND INCOME<br>7.1 General Equilibrium of Goods and Financial Markets | 7.2 Monetary Policy | MACRO UNIT: AGGREGATE SUPPLY<br>8.1 The Labor Market |
| TEXT | *Economics*, Ch 13 | *Economics*, Ch 18 | *Economics*, Ch 14, 43, 44, 45 |
| ASSIGNMENTS | Third Midterm Examination (Essays) |  |  |
| TUTORIALS |  |  | Macro Unit 7, 7.1 - 7.2<br>Macro Unit 8, 8.1<br>Review Research Report 4 |

| | Lecture 22 | Lecture 23 | Lecture 24 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 8: AGGREGATE SUPPLY (cont'd)<br>8.2 The Phillips Curve | MACRO UNIT 9: INTERNATIONAL MACROECONOMICS<br>9.1 The Balance of Payments | 9.2 The Income-Expenditure Model with Foreign Trade |
| TEXT | *Economics*, Ch 19 | *Economics*, Ch 39 | *Economics*, Ch 41 |
| ASSIGNMENTS | | Play Phase 5 of the Economic Policy Game | Research Report 5, The Simulation Model: Is it Realistic? |
| TUTORIALS | | | Macro Unit 8, 8.1 - 8.2<br>Macro Unit 9, 9.1 - 9.2 |

## Lecture 25

| | |
|---|---|
| LECTURE CONTENT | MACRO UNIT 9: INTERNATIONAL MACROECONOMICS (cont'd)<br>9.3 International Monetary Arrangements |
| TEXT | *Economics*, Ch 42 |
| ASSIGNMENTS | End of Quarter Student Evaluation Questionnaire<br>Final Examination |
| TUTORIALS | Macro Unit 9, 9.3<br>Review Research Report 5 |

## ECONOMIC POLICY GAME

Playing the Game

Operating the Computer

Sample Run, Phases 1 - 4:  Years 1 - 40

# Economic Policy Game

## (EPG)

### Introduction

You have just been appointed as a member of the new President's Council of Economic Advisers. You and your co-members will be responsible for formulating the President's economic policy for the duration of his administration. You will have to base your decisions on your understanding of economic theory and on the information contained in the record of the economy's performance over the past four years (see section 2 below). In making your decisions you should try to achieve the President's goals as they are given to you.

### History

The following table provides data on the economy over the past 4 years. Before you make your decisions for the next eight years, you should study these data to try to understand how the economy functions and meet with your co-advisers to discuss your policy recommendations.

#### Economic Indicators

| YR | Q | Y | C | I | G | T | D | U | P |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1500 | 1500 | 900 | 300 | 300 | 300 | 1200 | 4.0 | 4.0 |
| 2 | 1560 | 1580 | 960 | 300 | 320 | 300 | 1280 | 4.3 | 3.4 |
| 3 | 1622 | 1490 | 870 | 300 | 320 | 330 | 1160 | 6.4 | 1.0 |
| 4 | 1687 | 1520 | 870 | 300 | 350 | 360 | 1160 | 7.1 | 0.5 |

#### Definitions

YR - Year
Q - Potential GNP
Y - Actual GNP
C - Consumption expenditure
I - Investment expenditure
G - Government expenditure
T - Net taxes
D - Disposable income
U - Unemployment rate
P - Inflation rate

### Policy Objectives and Instruments

The goals of economic policy are politically determined. That is, it is your responsibility to recommend policy actions which are designed to achieve given objectives. The President campaigned on a platform of getting the economy back to "full employment." Initially, you have been asked to recommend the level of G which which will make Y=Q in year 5. Following the advice of Professor Reynolds, the President has expressed his economic objectives in the form of a welfare function which it is your job to maximize by making appropriate policy recommendations. For year 5 the welfare function is as follows:

W = -ABS(100*(Y-Q)/Q)

where "ABS" means absolute value of and "*" means times. Note that the highest possible value for W is 0 and W has the value of 0 when Y=Q. The value of W you get each year relative to its maximum value is an indication of how good you are as economic advisers.

In future years you will have different policy instruments (e.g., T as well as G) and different policy goals (e.g., a balanced budget as well as full employment). Also, there may be autonomous changes in the economy (e.g., an autonomous change in I). You will be informed ahead of time about any changes in policy instruments policy goals, or the economic environment.

### Making Your Policy Recommendations

Through the magic of computers the President is able to receive and implement your recommendations without stooping to meet with you. To advise the President you simply have to do the following:

a) Go to the Computer Center Classroom (Room 125) in the Media and Communications Building, Third College. There you will find 12 visual display terminals (CRT's). These have been reserved for your use on Monday, 10 a.m. to 12 noon, Wednesday, 4-7 p.m., and Friday, 9-11 a.m. (They are also available at other times when not reserved for use by other classes.)

b) Turn swith on rear right side of CRT, wait for 20 seconds and press the PAGE button.

c) Press RETURN button. After machine asks for usercode, type in account number and press RETURN. After it asks for the password, type it in and press RETURN. Note that the password will be masked to prevent a violation of security.

d) After machine stops printing, type E (IU601)EPG and press RETURN. Note the space after E. Then respond as requested by messages.

e) To respond to a request for a decision, type in your decision and then push the RETURN button. Before you push RETURN, however, check to be sure you have typed in your decision correctly. If you made a mistake, push the RUBOUT button. This will delete the entire line and enable you to type in the correct message. Once you push RETURN, it will be too late to correct your decision for that year.

f) To get off the machine at the end of a phase of the game type BYE and press return. If you fail to do this, charges will accumulate and you will quickly exhaust the budget.

Winning the Game

The team which has the best cumulative score for each phase of the game is the winner for that phase. The overall winner is the team with the best cumulative score over all 4 phases.

```
#UCSD B6700 CANDE 29.170; YOU ARE TTX1(86)
#ENTER PASSWORD PLEASE.
[redacted]
# DEFAULT PRINT DESTINATION=SITE
#PRIME RATE SESSION 3465  12:28:50  02/22/78


R (IU601)EPG
#RUNNING 3469
#
THIS IS THE FIRST PHASE OF THE ECONOMIC POLICY GAME.  YOU WILL
HAVE TO MAKE 8 POLICY DECISIONS FOR EACH PHASE.  COMPLETE EACH
PHASE IN ONE SITTING.  AFTER YOU MAKE YOUR DECISION FOR A YEAR
, THE COMPUTER WILL TELL YOU ABOUT THE GOAL AND THE POLICY VARIABLE
UNDER YOUR CONTROL FOR THE NEXT YEAR.  AFTER YOU ARE ASKED FOR
A DECISION, TAKE YOUR TIME (UP TO 5 MINUTES IS REASONABLE) TO
FIGURE OUT A RESPONSE.  WHEN YOU ARE READY TYPE IN YOUR RESPONSE
AND PUSH THE RETURN BUTTON.  FOR YEAR 5
YOUR GOAL IS TO CHANGE G TO MAKE Y=Q.  THAT IS, YOU WANT TO CHANGE
G TO MAXIMIZE THE WELFARE FUNCTION W=-ABS(100*(Q-Y)/Q).  TYPE
IN THE CHANGE IN G YOU RECOMMEND.

80
YR   Q    Y    C    I    G    T    D    U    P    W
 5 1754 1840 1110  300  430  360 1480  3.0  6.6   -5
IN PERIOD 6 YOUR GOAL REMAINS UNCHANGED.  HOWEVER, A SURVEY OF
BUSINESS INVESTMENT INTENTIONS INDICATES THAT THERE WILL BE AN
AUTONOMOUS INCREASE IN INVESTMENT EXPENDITURE OF 20.  YOUR GOAL
IS TO CHANGE G TO MAXIMIZE W=-ABS(100*(Q-Y)/Q).  TYPE IN YOUR
RECOMMENDED CHANGE IN G.


-10
YR   Q    Y    C    I    G    T    D    U    P    W
 6 1825 1880 1140  320  420  360 1520  3.4  5.5   -3
FOR YEAR 7 THE PRESIDENT HAS DECIDED TO KEEP G UNCHANGED.
HE HAS ASKED FOR YOUR RECOMMENDATION FOR CHANGE IN T WHICH WILL
MAXIMIZE W=-ABS(100*(Q-Y)/Q).  TYPE IN YOUR RECOMMENDED CHANGE IN T


-4
YR   Q    Y    C    I    G    T    D    U    P    W
 7 1898 1892 1152  320  420  356 1536  4.1  3.9    0
YOUR GOAL FOR NEXT PERIOD WILL AGAIN BE TO CHANGE T TO
MAXIMIZE W=-ABS(100*(Q-Y)/Q).  ANOTHER INVESTMENT SPENDING
SURVEY INDICATES THAT I (INVESTMENT) WILL INCREASE BY 10.TYPE
IN YOUR RECOMMENDED CHANGE IN T.


-12
YR   Q    Y    C    I    G    T    D    U    P    W
 8 1974 1968 1218  330  420  344 1624  4.1  3.9    0
THE PRESIDENT HAS BEEN REELECTED AND YOU HAVE BEEN REAPPOINTED
AS CHAIRMAN OF THE CEA.  HOWEVER, CONGRESS HAS DECIDED THAT THE
PRESIDENT'S PROPOSALS WILL BE MATCHED BY AN EQUAL CHANGE IN T.
THE PRESIDENT WANTS YOUR RECOMMENDED CHANGE IN G UNDER THESE
CONDITIONS WHICH WILL KEEP Y=Q.  WHAT IS YOUR DECISION?
```

```
60
YR   Q    Y    C    I    G    T    D    U    P    W
 9 2052 2028 1218  330  480  404 1624  4.3  3.5   -1
THE SITUATION FOR NEXT YEAR REMAINS THE SAME.  YOU MUST RECOMMEND
A CHANGE IN G THAT WILL KEEP Y=Q.  ANY CHANGE IN G WILL BE
MATCHED BY AN EQUAL CHANGE IN T.  HOWEVER, ANOTHER SURVEY OF
BUSINESSMEN INDICATES THAT I WILL INCREASE BY 30 NEXT YEAR.
WHAT IS YOUR RECOMMENDED CHANGE IN G?


-25
YR   Q    Y    C    I    G    T    D    U    P    W
10 2135 2123 1308  360  455  379 1744  4.1  3.8   -1
CONGRESS HAS DROPPED ITS INTENTION TO MATCH ANY CHANGE IN G
WITH AN EQUAL CHANGE IN T.  HOWEVER,THE PRESIDENT HAS RESPONDED
TO POLITICAL PRESSURE AND HAS DECIDED TO TRY TO BALANCE THE BUDGET
NEXT YEAR AND AT THE SAME TIME KEEP Y=Q.  YOUR JOB IS TO
SUGGEST CHANGES IN G AND T WHICH WILL MAXIMIZE THE FUNCTION:
     W=-ABS(100*(Q-Y)/Q)-ABS(100*(G-T)/T)
WHAT IS YOUR RECOMMENDED CHANGE IN T?


300
WHAT IS YOUR RECOMMENDED CHANGE IN G?
376
YR   Q    Y    C    I    G    T    D    U    P    W
11 2220 2727 1536  360  831  679 2048  1.1 25.9  -45
YOUR GOAL FOR YEAR 12 REMAINS UNCHANGED.  ONCE AGAIN YOU MUST
TRY TO CHANGE G AND T SO AS TO MAINTAIN A BALANCED BUDGET AND
KEEP Y=Q.
WHAT IS YOUR RECOMMENDED CHANGE IN G?


152
WHAT IS YOUR RECOMMENDED CHANGE IN T?
304
YR   Q    Y    C    I    G    T    D    U    P    W
12 2309 2423 1080  360  983  983 1440  3.0  6.6   -5
YOU HAVE COMPLETED PHASE 1 OF THE ECONOMIC POLICY GAME.  YOUR
CUMULATIVE SCORE FOR THIS PHASE =     -60.    A  HARD COPY RECORD
OF YOUR ECONOMY'S PERFORMANCE HAS  BEEN PRINTED AT RJT.  THIS
PRINTOUT ALSO CONTAINS INSTRUCTIONS FOR RESEARCH REPORT 1
WHICH IS TO BE COMPLETED AND HANDED IN ON
  TUESDAY,  JANUARY 31  IN CLASS
THE PRINTER IS LOCATED IN THE ROOM NEXT DOOR.
71 TEAMS HAVE FINISHED PHASE 1  FOR THIS PHASE THE
CURRENT BEST SCORE IS     0 AND THE AVERAGE SCORE IS  -92
SIGN OFF NOW BY TYPING BYE
```

```
#ET=7:10.6 PT=1.6 IO=2.6
R (IU601)EPG
#RUNNING 3558
#?
YOUR GOAL FOR YEAR 13 IS TO CHANGE G TO MAXIMIZE
               W=-(P*P)-(U*U).
TYPE IN YOUR RECOMMENDED CHANGE IN G.


0
YR   Q    Y    C    I    G    T    D    U    P    W
13 2401 2423 1080  360  983  983 1440  3.8  4.4  -34
THE PRESIDENT HAS IMPOSED A FREEZE ON GOVERNMENT EXPENDITURES
FOR YEAR 14.  YOU MUST RELY ON CHANGES IN T TO MAXIMIZE
   W=-(P*P)-(U*U).    TYPE IN YOUR RECOMMENDED CHANGE IN T.


0
YR   Q    Y    C    I    G    T    D    U    P    W
14 2497 2423 1080  360  983  983 1440  4.7  2.7  -30
CONGRESS HAS PASSED A LAW WHICH WILL REDUCE TAXES NEXT YEAR
BY 20.  THE PRESIDENT WANTS TO CHANGE G  TO MAXIMIZE
   W=-(P*P)-(U*U).     TYPE IN YOUR RECOMMENDED CHANGE IN G


00
YR   Q    Y    C    I    G    T    D    U    P    W
15 2597 2483 1140  360  983  963 1520  5.2  2.2  -31
CONGRESS HAS INFORMED THE PRESIDENT THAT IT WILL MATCH ANY
CHANGE IN G WITH AN EQUAL CHANGE IN T.  WHAT CHANGE IN G DO YOU
ADVISE BE MADE UNDER THESE CIRCUMSTANCES TO MAXIMIZE THE SAME
WELFARE FUNCTION?


120
YR   Q    Y    C    I    G    T    D    U    P    W
16 2701 2603 1140  360 1103 1083 1520  4.9  2.5  -31
THE PRESIDENT HAS BEEN REELECTED AND SHE HAS SHOWN SURPRISING
CONFIDENCE IN YOU AND HAS KEPT YOU ON AS CHAIRPERSON OF THE C.E.A.
A RESEARCH REPORT BY THE BROOKINGS INSTITUTE INDICATES THAT THE
RATE OF INFLATION, GIVEN THE RATE OF UNEMPLOYMENT, WILL INCREASE
NEXT YEAR BY 2 PERCENT, I.E. THE PHILLIPS CURVE WILL SHIFT UP
BY 2 PERCENTAGE POINTS.  YOUR GOAL FOR NEXT PERIOD IS TO MAXIMIZE
    W=-(P*P)-(U*U).     CONGRESS HAS RULED OUT ANY CHANGE IN T
FOR YEAR 17.  TYPE IN YOUR CHANGE IN G


20
YR   Q    Y    C    I    G    T    D    U    P    W
17 2809 2683 1200  360 1123 1083 1600  5.2  4.2  -44
ACCORDING TO A SURVEY OF BUSINESS  INTENTIONS,  I WILL INCREASE
NEXT YEAR BY 50.  YOU MUST RELY ON A CHANGE IN T TO MAXIMIZE THE
SAME WELFARE FUNCTION.  TYPE IN YOUR CHANGE IN T.
```

```
32
YR   Q    Y    C    I    G    T    D    U    P    W
18 2921 2787 1254  410 1123 1115 1672  5.2  4.1  -44
REACTION AROUND THE COUNTRY TO THE HIGHER RATE OF INFLATION HAS
PERSUADED THE PRESIDENT TO MODIFY HER POLICY OBJECTIVES.  FOR
THE REMAINDER OF HER TERM IN OFFICE SHE WANTS YOU TO TRY TO
MAXIMIZE THE FOLLOWING WELFARE FUNCTION:  W=-2*(P2*P2)-(U*U)
FOR YEAR 19 YOU MAY CHANGE EITHER G OR T, OR BOTH G AND T.
TYPE IN YOUR CHANGE IN G.


0
TYPE IN YOUR CHANGE IN T
0
YR   Q    Y    C    I    G    T    D    U    P    W
19 3038 2787 1254  410 1123 1115 1672  6.4  3.0  -59
FOR YEAR 20, HER LAST YEAR IN OFFICE, THE PRESIDENT IS EAGER
TO GET THE ECONOMY TO THE OPTIMAL UNEMPLOYMENT-INFLATION LEVELS.
IMPROVED BUSINESS CONFIDENCE HAS RESULTED IN EXPECTED INCREASE IN
I OF 100.  ONCE AGAIN YOU MAY RECOMMEND CHANGES IN G AND/OR T
TO MAXIMIZE W=-2(P*P)-(U*U).
TYPE IN YOUR RECOMMENDED CHANGE IN G.


100
TYPE IN YOUR RECOMMENDED CHANGE IN T.
100
YR   Q    Y    C    I    G    T    D    U    P    W
20 3160 3287 1554  510 1223 1215 2072  3.2  8.1 -141
YOU HAVE COMPLETED PHASE 2 OF THE ECONOMIC POLICY GAME.  YOUR
CUMULATIVE SCORE FOR THIS PHASE =   -415.    A  HARD COPY RECORD
OF YOUR ECONOMY'S PERFORMANCE HAS  BEEN PRINTED AT RJT.  THIS
PRINTOUT ALSO CONTAINS INSTRUCTIONS FOR RESEARCH REPORT 2
WHICH IS TO BE COMPLETED AND HANDED IN ON
  TUESDAY, FEBRUARY  7  IN CLASS
THE PRINTER IS LOCATED IN THE ROOM NEXT DOOR.


5 TEAMS
INISHED PHASE 2  FOR THIS PHASE THE
CURRENT BEST SCORE IS -325 AND THE AVERAGE SCORE IS*****
SIGN OFF NOW BY TYPING BYE
#ET=5:15.3 PT=1.7 IO=2.9
```

```
R (IU601)EPG
#RUNNING 3624
#
YOUR GOAL IN YEAR 21 IS TO CHANGE G TO MAXIMISE  W=-2(P*P)-U*U.
REMEMBER  T=T0+T1*Y  WHERE  T0=-100  AND T1= 0.25.   TYPE IN YOUR
RECOMMENDED CHANGE IN G



0
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    W
21 3286 4133 2400  510 1223  933 3199  0.9 33.4 -100 .250-2227
THE POSITIVE REACTION TO THE PRESIDENTS TAX REFORM HAS GIVEN
HIM THE CONFIDENCE TO CHANGE THE GOALS OF ECONOMIC POLICY.
IN THE RECENT PAST POLICY HAS GIVEN GREATER WEIGHT TO AVOIDING
INFLATION THAN TO AVOIDING UNEMPLOYMENT.  THE PRESIDENT WANTS
TO REVERSE THIS BIAS AND GIVE GREATER EMPHASIS TO REDUCING
UNEMPLOYMENT.  THE NEW GOAL WILL BE TO MAXIMIZE   W=-(P*P)-2(U*U)
ONCE AGAIN YOUR POLICY INSTRUMENT WILL BE TO CHANGE G.  TYPE IN
YOUR RECOMMENDED CHANGE.
-200
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    W
22 3418 3675 2142  510 1023  819 2857  2.6 10.4 -100 .250 -121
FOR NEXT PERIOD YOUR GOAL REMAINS THE SAME, BUT YOUR POLICY
INSTRUMENT WILL BE T1, THE MARGINAL TAX RATE.  G AND T0 WILL
REMAIN UNCHANGED.  REMEMBER THAT      T1 IS GREATER THAN 0 AND
LESS THAN 1.  ITS CURRENT VALUE IS 0.25.  TYPE IN YOUR RECOMMENDED
CHANGE IN T1.



-.03
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    W
23 3554 3875 2342  510 1023  752 3122  2.4 11.5 -100 .220 -143
YOUR POLICY GOAL AND POLICY INSTRUMENT REMAIN UNCHANGED FOR
PERIOD 4.  TYPE IN YOUR RECOMMENDED CHANGE IN T1



.04
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    W
24 3696 3613 2080  510 1023  840 2774  4.6  5.0 -100 .260  -67
DESPITE COMPLAINTS ABOUT HIGHER RATES OF INFLATION, BUSINESSES
SEEM EAGER TO INCREASE THEIR INVESTMENT EXPENDITURE.  THE
MOST RECENT SURVEY PREDICTS AN  INCREASE IN I OF 75.  THE
PRESIDENT IS EAGER TO BOLSTER BUSINESS CONFIDENCE BY BALANCING
THE BUDGET.  YOU CAN CHANGE G AND T0 TO TRY TO ACHIEVE A BALANCED
BUDGET AND KEEP THE ECONOMY AT THE OPTIMAL POINT ON THE PHILLIPS
CURVE.  YOUR GOAL FOR THE NEXT FOUR PERIODS WILL BY TO MAXIMIZE
W=-(P*P)-2(U*U)-ABS(100*(G-T)/T).  TYPE IN YOUR RECOMMENDED CHANGE
IN G



300
TYPE IN YOUR RECOMMENDED CHANGE IN T0
433
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    W
25 3844 3642 1734  585 1323 1330 2312  5.4  3.9  383 .260  -74
YOUR GOAL AND POLICY INSTRUMENTS REMAIN UNCHANGED FOR YEAR
26.  TYPE IN YOUR CHANGE IN G.
```

```
50
TYPE IN YOUR CHANGE IN T0
40
YR   Q     Y     C     I     G     T     D     U     P    T0    T1     W
26 3998 3687 1729  585 1372 1382 2305  6.3  3.1  423 .260  -89
YOUR GOAL FOR THE NEXT 2 PERIODS REMAINS THE SAME, BUT YOU
NOW MUST CHANGE T1 INSTEAD OF T0.  YOU STILL MAY CHANGE G.
THAT IS, CHANGE G AND T1 SO AS TO MAXIMIZE
     W=-(P*P)-2(U*U)-ABS(100*(G-T)/T)
TYPE IN YOUR CHANGE IN G


90
TYPE IN YOUR CHANGE IN T1
.03
YR   Q     Y     C     I     G     T     D     U     P    T0    T1     W
27 4158 3702 1654  585 1463 1497 2206  7.5  2.2  423 .290 -121
FOR YEAR 28 YOUR POLICY GOAL AND POLICY INSTRUMENTS REMAIN
UNCHANGED.  CHANGE G AND T1 TO MAXIMIZE
         W=-(P*P)-2(U*U)-ABS(100*(G-T)/T)
TYPE IN YOUR CHANGE IN G


150
TYPE IN YOUR CHANGE IN T1
.04
YR   Q     Y     C     I     G     T     D     U     P    T0    T1     W
28 4324 3780 1582  585 1613 1671 2110  8.3  1.9  423 .330 -144
YOU HAVE COMPLETED PHASE 3 OF THE ECONOMIC POLICY GAME.  YOUR
CUMULATIVE SCORE FOR THIS PHASE =  -2985.    A  HARD COPY RECORD
OF YOUR ECONOMY'S PERFORMANCE HAS  BEEN PRINTED AT RJT.  THIS
PRINTOUT ALSO CONTAINS INSTRUCTIONS FOR RESEARCH REPORT 3
WHICH IS TO BE COMPLETED AND HANDED IN ON
 THURSDAY, FEBRUARY 23  IN CLASS
THE PRINTER IS LOCATED IN THE ROOM NEXT DOOR.
23 TEAMS HAVE FINISHED PHASE 3  FOR THIS PHASE THE
CURRENT BEST SCORE IS -524 AND THE AVERAGE SCORE IS*****
SIGN OFF NOW BY TYPING BYE
```

```
R (IU601)EPG
#ET=6:~9.4 PT=1.9 IO=3.3
#RUNNING 3723
#?
YOUR GOAL FOR YEAR 33 IS TO CHANGE M TO MAXIMIZE
     W2=-(P◆P)-(U◆U).     TYPE IN YOUR CHANGE IN M.
200
YR   Q    Y    C    I    G    T    D    U    P    TO   T1    R    M
33 5261 4382 1885  884 1613 1869 2513 10.5  1.0  423 .330  7.0  678
W=  -111
YOUR GOAL FOR YEAR 34 REMAINS UNCHANGED.  CHANGE M TO
MAXIMIZE W=-(P◆P)-(U◆U).  HOWEVER, ANOTHER SURVEY OF INVESTMENT
PLANS INDICATES THAT I WILL INCREASE BY 90, IF R REMAINED UNCHANGED
TYPE IN YOUR CHANGE IN M



0
YR   Q    Y    C    I    G    T    D    U    P    TO   T1    R    M
34 5472 4490 1939  938 1613 1905 2585 11.3  0.8  423 .330  7.4  678
W=  -128
YOUR GOAL FOR 35 REMAINS THE SAME.  CHANGE M TO MAXIMIZE
   W=-(P◆P)-(U◆U).     ACCORDING TO THE FEDERAL RESERVE,HOWEVER,
A NEW LAW LIBERALIZING THE USE OF CREDIT CARDS HAS RESULTED
IN A DECREASE IN THE DEMAND FOR MONEY FUNCTION OF 50.
TYPE IN YOUR CHANGE IN M



250
YR   Q    Y    C    I    G    T    D    U    P    TO   T1    R    M
35 5690 5694 2544 1537 1613 2302 3392  4.0  6.0  423 .330  1.4  928
W=   -52
YOUR GOAL FOR YEAR 36 REMAINS UNCHANGED.  CHANGE M SO AS TO
MAXIMIZE  W=-(P◆P)-(U◆U).  TYPE IN YOUR CHANGE IN M



200
YR   Q    Y    C    I    G    T    D    U    P    TO   T1    R    M
36 5918 5971 2683 1675 1613 2394 3578  3.8  6.4  423 .330  0.0 1128
W=   -56
IN SEEKING REELECTION THE PRESIDENT COMMITTED HIMSELF TO
SOLVING THE BALANCE OF PAYMENTS PROBLEM BY PURSUING A MORE
RESTRICTIVE MONETARY POLICY.  CONSISTENT WITH THIS CAMPAIGN
PROMISE HE HAS REVISED HIS ECONOMIC POLICY GOAL.
FOR YEAR 37 YOU CAN RECOMMEND CHANGES IN G AND M.  YOU MUST NOW
TRY TO MAXIMIZE  W=-(P◆P)-(U◆U)-ABS(R-7)
THAT IS, YOU MUST CHOOSE CHANGES IN G AND M WHICH KEEP THE
ECONOMY AT THE OPTIMAL POINT ON THE PHILLIPS CURVE AND WHICH
ALSO ACHIEVE AN INTEREST RATE OF 7 PER CENT.  TYPE IN YOUR
CHANGE IN G
```

```
R (IU601)EPG
*ET=6:59.4 PT=1.9 IO=3.3
*RUNNING 3723
*?
YOUR GOAL FOR YEAR 33 IS TO CHANGE M TO MAXIMIZE
     W2=-(P*P)-(U*U).    TYPE IN YOUR CHANGE IN M.
200
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    R    M
33 5261 4382 1885  884 1613 1869 2513 10.5  1.0  423 .330  7.0  678
W=  -111
YOUR GOAL FOR YEAR 34 REMAINS UNCHANGED.  CHANGE M TO
MAXIMIZE W=-(P*P)-(U*U).  HOWEVER, ANOTHER SURVEY OF INVESTMENT
PLANS INDICATES THAT I WILL INCREASE BY 90, IF R REMAINED UNCHANGED
TYPE IN YOUR CHANGE IN M



0
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    R    M
34 5472 4490 1939  938 1613 1905 2585 11.3  0.8  423 .330  7.4  678
W=  -128
YOUR GOAL FOR 35 REMAINS THE SAME.  CHANGE M TO MAXIMIZE
   W=-(P*P)-(U*U).    ACCORDING TO THE FEDERAL RESERVE,HOWEVER,
A NEW LAW LIBERALIZING THE USE OF CREDIT CARDS HAS RESULTED
IN A DECREASE IN THE DEMAND FOR MONEY FUNCTION OF 50.
TYPE IN YOUR CHANGE IN M



250
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    R    M
35 5690 5694 2544 1537 1613 2302 3392  4.0  6.0  423 .330  1.4  928
W=   -52
YOUR GOAL FOR YEAR 36 REMAINS UNCHANGED.  CHANGE M SO AS TO
MAXIMIZE  W=-(P*P)-(U*U).  TYPE IN YOUR CHANGE IN M



200
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    R    M
36 5918 5971 2683 1675 1613 2394 3578  3.8  6.4  423 .330  0.0 1128
W=   -56
IN SEEKING REELECTION THE PRESIDENT COMMITTED HIMSELF TO
SOLVING THE BALANCE OF PAYMENTS PROBLEM BY PURSUING A MORE
RESTRICTIVE MONETARY POLICY.  CONSISTENT WITH THIS CAMPAIGN
PROMISE HE HAS REVISED HIS ECONOMIC POLICY GOAL.
FOR YEAR 37 YOU CAN RECOMMEND CHANGES IN G AND M.  YOU MUST NOW
TRY TO MAXIMIZE  W=-(P*P)-(U*U)-ABS(R-7)
THAT IS, YOU MUST CHOOSE CHANGES IN G AND M WHICH KEEP THE
ECONOMY AT THE OPTIMAL POINT ON THE PHILLIPS CURVE AND WHICH
ALSO ACHIEVE AN INTEREST RATE OF 7 PER CENT.  TYPE IN YOUR
CHANGE IN G
```

```
R (IU601)EPG
#ET=6:-9.4 PT=1.9 IO=3.3
#RUNNING 3723
#?
YOUR GOAL FOR YEAR 33 IS TO CHANGE M TO MAXIMIZE
     W2=-(P*P)-(U*U).    TYPE IN YOUR CHANGE IN M.
200
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    R    M
33 5261 4382 1885  884 1613 1869 2513 10.5  1.0  423 .330  7.0  678
W=  -111
YOUR GOAL FOR YEAR 34 REMAINS UNCHANGED.  CHANGE M TO
MAXIMIZE W=-(P*P)-(U*U).  HOWEVER, ANOTHER SURVEY OF INVESTMENT
PLANS INDICATES THAT I WILL INCREASE BY 90, IF R REMAINED UNCHANGED
TYPE IN YOUR CHANGE IN M



0
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    R    M
34 5472 4490 1939  938 1613 1905 2585 11.3  0.8  423 .330  7.4  678
W=  -128
YOUR GOAL FOR 35 REMAINS THE SAME.  CHANGE M TO MAXIMIZE
   W=-(P*P)-(U*U).    ACCORDING TO THE FEDERAL RESERVE,HOWEVER,
A NEW LAW LIBERALIZING THE USE OF CREDIT CARDS HAS RESULTED
IN A DECREASE IN THE DEMAND FOR MONEY FUNCTION OF 50.
TYPE IN YOUR CHANGE IN M



250
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    R    M
35 5690 5694 2544 1537 1613 2302 3392  4.0  6.0  423 .330  1.4  928
W=   -52
YOUR GOAL FOR YEAR 36 REMAINS UNCHANGED.  CHANGE M SO AS TO
MAXIMIZE  W=-(P*P)-(U*U).  TYPE IN YOUR CHANGE IN M



200
YR   Q    Y    C    I    G    T    D    U    P   T0   T1    R    M
36 5918 5971 2683 1675 1613 2394 3578  3.8  6.4  423 .330  0.0 1128
W=   -56
IN SEEKING REELECTION THE PRESIDENT COMMITTED HIMSELF TO
SOLVING THE BALANCE OF PAYMENTS PROBLEM BY PURSUING A MORE
RESTRICTIVE MONETARY POLICY.  CONSISTENT WITH THIS CAMPAIGN
PROMISE HE HAS REVISED HIS ECONOMIC POLICY GOAL.
FOR YEAR 37 YOU CAN RECOMMEND CHANGES IN G AND M.  YOU MUST NOW
TRY TO MAXIMIZE  W=-(P*P)-(U*U)-ABS(R-7)
THAT IS, YOU MUST CHOOSE CHANGES IN G AND M WHICH KEEP THE
ECONOMY AT THE OPTIMAL POINT ON THE PHILLIPS CURVE AND WHICH
ALSO ACHIEVE AN INTEREST RATE OF 7 PER CENT.  TYPE IN YOUR
CHANGE IN G
```

```
400
TYPE IN YOUR CHANGE IN M
-400
YR   Q    Y    C    I    G    T    D    U    P    T0   T1   R    M
37 6155 5373 2383  977 2013 2196 3177  8.3  1.8  423 .330  7.0  728
W=   -73
YOUR GOALS AND POLICY INSTRUMENTS REMAIN UNCHANGED FOR YEAR
38.  TYPE IN YOUR CHANGE IN G


100
TYPE IN YOUR CHANGE IN M
200
YR   Q    Y    C    I    G    T    D    U    P    T0   T1   R    M
38 6401 6296 2846 1336 2113 2501 3795  4.4  5.3  423 .330  3.4  928
W=   -51
IN THE CONGRESSIONAL ELECTIONS THE VOTERS HAVE MADE CLEAR
THEIR DISSATISFACTION WITH THE ADMINISTRATIONS POLICY OBJECTIVES.
THEY SEEM TO FEEL THAT HIGH INTEREST RATES TO SOLVE BALANCE OF
PAYMENTS PROBLEMS HAVE HURT THE ECONOMY BY DISCOURAGING INVESTMENT
AND SLOWING DOWN THIS LONG TERM GROWTH OF THE ECONOMY.
AS A RESULT, THE PRESIDENT HAS REVISED HIS POLICY GOALS.  YOU ARE
NOW TO TRY TO MAXIMISE  W=-(P*P)-(U*U)-ABS(R-3).
CONGRESS HAS PUT A FREEZE ON G, BUT YOU MAY VARY T0 AND M TO
ACHIEVE THE ADMINISTRATION'S GOAL.  TYPE IN YOUR CHANGE IN T0


-100
TYPE IN YOUR CHANGE IN M
100
YR   Q    Y    C    I    G    T    D    U    P    T0   T1   R    M
39 6657 6787 3168 1506 2113 2563 4224  3.6  7.0  323 .330  1.7 1028
W=   -62
FOR YEAR 40 YOU WILL AGAIN BE ASKED TO CHANGE G AND T0 TO
MAXIMIZE  W=-(P*P)-(U*U)-ABS(R-3).    TYPE IN YOUR RECOMMENDED
CHANGE IN T0


-100
TYPE IN YOUR RECOMMENDED CHANGE IN M
0
YR   Q    Y    C    I    G    T    D    U    P    T0   T1   R    M
40 6923 6877 3289 1476 2113 2493 4385  4.2  5.7  223 .330  2.0 1028
W=   -51
YOU HAVE COMPLETED PHASE 4 OF THE ECONOMIC POLICY GAME.  YOUR
CUMULATIVE SCORE FOR THIS PHASE =    -583.     A  HARD COPY RECORD
OF YOUR ECONOMY'S PERFORMANCE HAS  BEEN PRINTED AT RJT.  THIS
PRINTOUT ALSO CONTAINS INSTRUCTIONS FOR RESEARCH REPORT 4
WHICH IS TO BE COMPLETED AND HANDED IN ON
   THURSDAY, MARCH 2    IN CLASS
THE PRINTER IS LOCATED IN THE ROOM NEXT DOOR.
 2 TEAMS HAVE FINISHED PHASE 4  FOR THIS PHASE THE
CURRENT BEST SCORE IS -583 AND THE AVERAGE SCORE IS-1496
SIGN OFF NOW BY TYPING BYE
BYE
*ET=5:17.6 PT=1.6 IO=2.5
BYE
*END PRIME RATE SESSION 3465  ET=38:02.1 PT=6.8 IO=11.3
*USER = IU602  13:06:53  02/22/78
```

Answer Sheet for First Mid-Term - Macroeconomics

---

First name: Last Name:

---

Please circle the letter which you think corresponds to the correct answer. Erase completely any answer you wish to change.

| | | | |
|---|---|---|---|
| Q. 1 a b c d | Q.11 a b c d | Q.21 a b c d | Q.31 a b c d |
| Q. 2 a b c d | Q.12 a b c d | Q.22 a b c d | Q.32 a b c d |
| Q. 3 a b c d | Q.13 a b c d | Q.23 a b c d | Q.33 a b c d |
| Q. 4 a b c d | Q.14 a b c d | Q.24 a b c d | Q.34 a b c d |
| Q. 5 a b c d | Q.15 a b c d | Q.25 a b c d | Q.35 a b c d |
| Q. 6 a b c d | Q.16 a b c d | Q.26 a b c d | |
| Q. 7 a b c d | Q.17 a b c d | Q.27 a b c d | |
| Q. 8 a b c d | Q.18 a b c d | Q.28 a b c d | |
| Q. 9 a b c d | Q.19 a b c d | Q.29 a b c d | |
| Q.10 a b c d | Q.20 a b c d | Q.30 a b c d | |

## First Mid-Term - Macroeconomics

Answer all questions

1. Which of the following is the best definition of the concept "gross national product"?

   a. the utility consumers receive from their purchases in a year
   b. the market value of final goods and services produced in a year
   c. the nation's wealth
   d. the wages paid for productive work done during a year

2. If you were to add up all sales in the economy for a given year the result would:

   a. equal GNP for that year
   b. exceed GNP for that year
   c. be less than GNP for that year
   d. ignore consumers' valuation of the goods and services produced

3. In the national GNP accounts, producers' goods like machinery

   a. are not counted as "product" because they are not "consumed"
   b. are not counted as "product" because they eventually are transformed into other "final" goods
   c. are counted as "product" when sold to businesses or held in inventory
   d. are only counted as "product" as they depreciate

4. Which of the following is "investment" in the sense of the national income accounts?

   a. purchase of a car by a family
   b. purchase of a share of common stock in a corporation
   c. building of a new house by a family
   d. all of the above

5. The term "real GNP" as contrasted with "money GNP" refers to:

   a. money GNP corrected for price changes
   b. the part of GNP that is goods, as opposed to services
   c. the part of GNP that is really useful, not frivolous or wasteful production
   d. money GNP minus exports

6. Assume that consumers in a certain country buy only bread and cloth. The amounts and prices for 1960 and 1970 are as shown below. If we take 1960 as the base year, what will the GNP deflator be for 1970?

| | Bread | | Cloth | |
|---|---|---|---|---|
| | Amount | Price | Amount | Price |
| 1960 | 1000 | $0.15 | 50 | $2.00 |
| 1970 | 2000 | $0.16 | 70 | $1.00 |

a. 78.3
b. 84
c. 88.6
d. 156

7. If the economy is at full employment, output must always expand if

a. potential GNP increases
b. unemployment increases
c. money GNP increases
d. none of the above is correct

8. Investment and technical progress

a. will raise labor productivity, but not potential GNP
b. will lead to unemployment, unless the labor force declines
c. makes possible higher levels of GNP per worker
d. all of the above are correct

9. When there is unemployment a decline in aggregate demand will lead primarily to

a. a decline in real GNP
b. a decline in the price level
c. a decline in potential GNP
d. a shift in the aggregate supply curve

10. Which of the following would explain why an increase in aggregate demand does not always lead to at least an equal increase in real GNP?

    a. Potential GNP is an upper limit to actual real GNP
    b. There is not a sufficient quantity of resources to produce all levels of real GNP
    c. Resource owners and firms may respond by raising resource and product prices instead of producing more output
    d. All of the above

11. Which of the following must be true if unemployment is increasing over time?

    1. Real GNP must be falling

    2. Potential GNP must be rising

        a. 1 only
        b. 2 only
        c. Both 1 and 2
        d. Either 1 or 2 or both

12. If an increase in potential GNP were accompanied by a less rapid increase in aggregate demand, which of the following would occur?

    1. An output gap would be created

    2. An inflationary gap would be reduced

        a. 1 only
        b. 2 only
        c. 1 or 2 or both
        d. Neither 1 nor 2

13. The reason that an increase in investment spending has a "multiplied" effect on income is best stated as

    a. investment spending raises the economy's capacity to produce
    b. investment dollars are more "powerful" than consumption dollars
    c. the new investment raises income, which in turn raises consumption and hence income again
    d. investments earn interest which raises income

14. $C = 100 + .8Y$

If the "consumption function" for an economy can be represented by the equation above, and if there is no government sector in the economy, then

a. the amount saved is 20 if income is 600
b. consumption is zero if income is zero
c. consumption and income can never be equal
d. people save less the higher their income

15. The equilibrium level of GNP - that is, the level at which output will tend to be stable - may occur when

a. there is less than full employment
b. the economy is operating at capacity
c. the economy is not operating on its production-possibilities frontier
d. all of the above

16. The relation between an autonomous increase in government spending on goods and services, and an autonomous increase in private investment spending, is that

a. they have similar effects on aggregate supply
b. they have similar effects on aggregate demand
c. investment has a "multiplier" effect, but government spending does not
d. private investment must equal saving; government spending must equal taxes

17. Government spending for goods and services, as compared to government spending for transfer payments

a. has the same multiplier effect
b. has a smaller multiplier effect, because it competes with private spending for goods and services
c. has a larger multiplier effect, because it increases both government and private demand for goods and services
d. has a larger multiplier effect, because sellers of goods to the government have a higher marginal propensity to consume than do recipients of transfer payments

18. The government can change the level of aggregate demand by changing

- a. government expenditure
- b. taxes
- c. transfer payments
- d. any of the above

19. If the gap between actual and potential GNP was $20 billion, and the marginal propensity to spend was .75, it would be possible to return to full employment if there were

- a. a cut in taxes by $5 billion
- b. an increase in transfer payments by $5 billion
- c. an increase in government expenditure by $5 billion
- d. any of the above

20. If the government increases its deficit spending during a period of full employment

- a. unemployment will tend to result
- b. inflation will tend to result
- c. debt can be reduced
- d. interest rates will automatically decline

21. If corporation profits tax rates rise, and other things stay the same, the rate of return on investment will

- a. rise
- b. fall
- c. stay the same
- d. fall now but rise later

22. Suppose that a new machine costs $200. Keeping the machine in good operating order will cost about $40 a year. If the machine is installed, it will produce added output worth $100 a year, and there will be added labor and materials costs of $20 a year. What is the rate of return on this machine?

- a. zero
- b. 20%
- c. 40%
- d. 50%

23. An investment expenditure is worth making if

a. it earns a positive rate of return
b. its rate of return exceeds the rate of interest
c. it earns a positive rate of interest
d. the rate of interest exceeds its rate of return

24. In order for a change in the quantity of money to change the level of aggregate demand, it is necessary and sufficient that

a. the demand for money depends on the rate of interest
b. the rate of investment depends on the rate of interest
c. both a and b be true
d. either a or b, but not both, be true

25. Two policies that the Federal Reserve might use if it thought aggregate demand should be increased are

a. sell bonds in the open market, and raise reserve requirements
b. buy bonds in the open market, and lower the discount rate
c. raise the discount rate, and raise reserve requirements
d. sell bonds in the open market, and raise the discount rate

26. Which of the following factors is an important reason why banks will want to expand their loans and investments when the Federal Reserve acts to give them excess reserves?

a. they are legally required to expand loans if the Fed wishes it
b. excess reserves are a non-interest-bearing asset for banks
c. maintaining excess reserves is against the law
d. if banks don't make use of the excess reserves, they fear that the Fed will remove them

27. In order to reduce unemployment it would be appropriate for the Federal Reserve to

a. reduce its holdings of securities
b. add to its holdings of securities
c. decrease its total liabilities
d. decrease its total assets

28. The faster a country's population grows, other things equal,

a. the faster its standard of living goes up
b. the more inflation it has
c. the faster its potential GNP rises
d. the less unemployment it has

29. Changes in which of the following factors need to be correctly forecast in order to formulate the proper monetary and fiscal policies?

a. Other factors affecting aggregate demand
b. Potential GNP
c. Both a and b
d. None of the above

30. If unit costs are expected to rise even though the unemployment rate is 6 per cent, fiscal and monetary policy cannot achieve

a. full employment
b. price stability
c. full employment with price stability
d. economic growth

31. If the economy is at full employment with price stability this year, it is likely, unless fiscal and monetary policy are adjusted, that there will be unemployment next year due to the usual

a. decline in aggregate demand
b. growth in potential GNP
c. rise in wages
d. decline in labor productivity

32. If technical progress leads to a rise in labor productivity of 5 per cent, a wage rate increase of 5 per cent implies that

a. workers will obtain all of the benefits
b. there will be cost-push inflation
c. unit labor costs will remain unchanged
d. profit per unit must fall

33. For any single country, running a persistent and sizeable excess of imports over exports for a period of many years

a. is not possible
b. is possible only if the country repeatedly reduces the international value of its currency
c. is possible if the country is a consistent international lender at the same time
d. is possible if the country is a consistent international borrower at the same time

34. Under a system of flexible exchange rates, the pound will fall in value in relation to the dollar if

a. the American demand for British products goes up
b. British prices and costs go up
c. American investors increase investment in stocks and bonds of British firms
d. the British government restricts the number of British tourists travelling in the U.S. by cutting travel allotments

35. Because money is an alternative to holding securities, the amount of money people want to hold

a. will rise if the interest rates rise
b. will fall if the interest rates rise
c. will rise if incomes fall
d. will rise if prices fall

## MACRO CORE COURSE

## 2.7 TIPS COURSE PACKAGE

| | | | |
|---|---|---|---|
| 2.7.1 | Macro Units | 1 | Basic Macroeconomic Concepts |
| | | 2 | A Simple Model of Income and Expenditure Determination |
| | | 3 | Aggregate Demand, Unemployment, and Inflation |
| | | 4 | Using the Expanded Model for Policy Making |
| | | 5 | Investment Expenditure |
| | | 6 | Money and Interest |
| | | 7 | Money, Interest, and Income |
| | | 8 | Aggregate Supply |
| | | 9 | International Macroeconomics |
| 2.7.2 | Lectures | 25 | x 50 minute Lectures |
| 2.7.3 | Texts | | Economics, (McConnell), Course Notebook |
| 2.7.4 | Readings | | "President Carter on Tax Cuts and Spending Cuts" |
| | | | "An Evaluation of Trade-Offs" |
| | | | "Why Don't We Attack the Real Source of Inflation?" |
| | | | "On Fighting Unemployment" |
| 2.7.5 | Assignments | 1 | 1 Mathematics Survey |
| | | 2 | 11 TIPS Debriefing Sessions |
| | | 3 | First Midterm Examination (50 minutes - Objective) |
| | | 4 | Second Midterm Examination (2 hours - Essays) |
| | | 5 | Final Examination (3 hours - Objective + Essays) |
| 2.7.6 | Tutorials | 1 | Mathematics Tutorial |
| | | 2 | 11 TIPS Debriefing Sessions |
| | | 3 | 4 Student to Student Sessions |
| | | 4 | 5 Small Group Discussions |
| 2.7.7 | Research Requirements | 1 | Student Information Questionnaire |
| | | 2 | Pre-Test of Macroeconomics Comprehension |
| | | 3 | Psychological Inventory |
| | | 4 | Continuous Student Evaluation Questionnaire |
| | | 5 | End of Quarter Student Evaluation Questionnaire |
| | | 6 | Instructor Questionnaire |

|  | Lecture 1 | Lecture 2 | Lecture 3 |
|---|---|---|---|
| LECTURE CONTENT | Introduction and Overview<br>Description of TIPS<br>MACRO UNIT 1: BASIC MACROECONOMIC CONCEPTS<br>1.1 Underlying Microeconomic Behavior | 1.2 National Income and Product Accounting | 1.3 Nominal and Real GNP; Actual and Potential GNP |
| TEXT | McConnell, Economics, Ch 1, 2, 4 | Economics, Ch 9 | Economics, Ch 9, 10 |
| READINGS |  |  |  |
| ASSIGNMENTS | Student Information Questionnaire<br>Pre-Test of Macroeconomics Comprehension<br>Psychological Inventory<br>Basic Mathematical Survey |  |  |
| TUTORIALS |  | Remedial Mathematics Tutorial | Small Group Discussion |

|  | Lecture 4 | Lecture 5 | Lecture 6 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 1: BASIC MACROECONOMIC CONCEPTS (cont'd)<br>1.4 Economic Policy | MACRO UNIT 2: A SIMPLE MODEL OF INCOME AND EXPENDITURE DETERMINATION<br>2.1 The Structure of the Model | 2.2 Solving the Model |
| TEXT | Economics, Ch 10 | Economics, Ch 11<br>Course Notebook, 2A, 2B, 2C | Economics, Ch 11, 12 |
| READINGS | "President Carter on Tax Cuts and Spending Cuts" |  |  |
| ASSIGNMENTS | TIPS Survey 1.1 |  | TIPS Survey 2.1 |
| TUTORIALS | Student to Student Session | TIPS Debriefing Session<br>Macro Unit 1, 1.1 - 1.4 | Small Group Discussion |

|  | Lecture 7 | Lecture 8 | Lecture 9 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 2: A SIMPLE MODEL OF INCOME AND EXPENDITURE DETERMINATION (cont'd)<br>2.3 Interpreting the Model | MACRO UNIT 3: AGGREGATE DEMAND, UNEMPLOYMENT, AND INFLATION<br>3.1 Aggregate Demand Relative to Potential GNP | 3.2 Unemployment and Inflation |
| TEXT | *Economics*, Ch 12 | *Economics*, Ch 12 | *Economics*, Ch 12 |
| READINGS |  |  | "An Evaluation of Trade-Offs" |
| ASSIGNMENTS | TIPS Survey 2.2 |  | TIPS Survey 3.1 |
| TUTORIALS | TIPS Debriefing Session<br>Macro Unit 2, 2.1 - 2.2 | TIPS Debriefing Session<br>Macro Unit 2, 2.3 | Student to Student Session |

|  | Lecture 10 | Lecture 11 | Lecture 12 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 4: USING THE EXPANDED MODEL FOR POLICY MAKING<br>4.1 Fiscal Policy | 4.2 The Balanced Budget Multiplier | 4.3 Choosing the Size of the Budget Deficit or Surplus |
| TEXT | Economics, Ch 6, 13<br>Course Notebook, 4A, 4C | Economics, Ch 13<br>Course Notebook, 4B | Economics, Ch 13<br>Course Notebook, 4D |
| READINGS |  |  |  |
| ASSIGNMENTS |  | TIPS Survey 4.1 |  |
| TUTORIALS | TIPS Debriefing Session<br>Macro Unit 3, 3.1 - 3.2 | Small Group Discussion | TIPS Debriefing Session<br>Macro Unit 4, 4.1 - 4.2 |

| | Lecture 13 | Lecture 14 | Lecture 15 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 4: USING THE EXPANDED MODEL FOR POLICY MAKING (cont'd)<br>4.4 Endogenous Taxes | MACRO UNIT 5: INVESTMENT EXPENDITURE<br>5.1 Investment in the American Economy<br>5.2 Investment Expenditure and the Rate of Interest | 5.3 Other Determinants of Investment Expenditure |
| TEXT | Economics, Ch 13 | Economics, Ch 11 | Economics, Ch 11 |
| READINGS | | | |
| ASSIGNMENTS | TIPS Survey 4.2<br>Continuous Student Evaluation Questionnaire<br>First Midterm Examination (Objective) | | TIPS Survey 5.1 |
| TUTORIALS | | TIPS Debriefing Session Macro Unit 4, 4.3 - 4.4 | Student to Student Session |

| | Lecture 16 | Lecture 17 | Lecture 18 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 6: MONEY AND INTEREST<br>6.1 Saving and Wealth | 6.2 Money and Financial Intermediaries | 6.3 The Demand for Money |
| TEXT | *Economics*, Ch 14 | *Economics*, Ch 14, 15 | *Economics*, Ch 16 |
| READINGS | | | |
| ASSIGNMENTS | | | TIPS Survey 6.1 |
| TUTORIALS | TIPS Debriefing Session<br>Macro Unit 5, 5.1 - 5.3 | | Small Group Discussion |

| | Lecture 19 | Lecture 20 | Lecture 21 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 7: MONEY, INTEREST, AND INCOME<br>7.1 General Equilibrium of Goods and Financial Markets | 7.2 Monetary Policy | MACRO UNIT 8: AGGREGATE SUPPLY<br>8.1 The Labor Market |
| TEXT | Economics, Ch 16, 17 | Economics, Ch 16, 17 | Economics, Ch 31 |
| READINGS | | "Why Don't We Attack the Real Source of Inflation?" | |
| ASSIGNMENTS | | TIPS Survey 7.1<br>Second Midterm Examination (Essays) | |
| TUTORIALS | TIPS Debriefing Session<br>Macro Unit 6, 6.1 - 6.3 | | TIPS Debriefing Session<br>Macro Unit 7, 7.1 - 7.2 |

|  | Lecture 22 | Lecture 23 | Lecture 24 |
|---|---|---|---|
| LECTURE CONTENT | MACRO UNIT 8: AGGREGATE SUPPLY (cont'd)<br>8.2 The Phillips Curve | MACRO UNIT 9: INTERNATIONAL MACROECONOMICS<br>9.1 The Balance of Payments | 9.2 The Income-Expenditure Model with Foreign Trade |
| TEXT | *Economics*, Ch 18 | *Economics*, Ch 43 | *Economics*, Ch 41 |
| READINGS | "On Fighting Unemployment" |  |  |
| ASSIGNMENTS | TIPS Survey 8.1 |  |  |
| TUTORIALS | Student to Student Session | TIPS Debriefing Session<br>Macro Unit 8, 8.1 - 8.2 | Small Group Discussion |

## Lecture 25

| | |
|---|---|
| LECTURE CONTENT | MACRO UNIT 9: INTERNATIONAL MACROECONOMICS (cont'd)<br>9.3 International Monetary Arrangements |
| TEXT | *Economics*, Ch 44 |
| READINGS | |
| ASSIGNMENTS | TIPS Survey 9.1<br>End of Quarter Student Evaluation Questionnaire<br>Final Examination |
| TUTORIALS | TIPS Debriefing Session<br>Macro Unit 9, 9.1 - 9.3 |

# COURSE NOTEBOOK

# Preface

The materials in this course notebook accompany the lecture outlines distributed for this class. Some of the topics covered in the lecture outline are not taken up in either McConnell or Bingham. The Course Notebook presents selected exercises to assist you in these particular areas. The numbering scheme corresponds to the four main units in the lecture outline where the topic is covered.

## Problem 2-A

Construct a model around the following situation:

> The Grant Foster Firm produces sunglasses. In its production process it uses only labor (L). It pays a wage rate (W) which is determined entirely by the union. The firm is in business to make profits (P), which is the difference between sales (S) and costs (C). The total cost is by definition the amount of labor used in production times the wage rate. The amount of laborers who show up for work depends on the wage rate. In particular, assume L = aW. Sales, in turn, depend on the number of sunny days (N, such that S = bN).

On your work sheet construct a model of this situation, assuming the wage rate and the number of sunny days are both exogenously given. Answer the following questions concerning this model:

___ 1. This model has how many endogenous variables:

- a. 2
- b. 3
- c. 4
- d. 5

___ 2. This model has how many exogenous variables:

- a. 2
- b. 3
- c. 4
- d. 5

___ 3. Identify one of the parameters in this model:

- a. S
- b. N
- c. W
- d. b

___ 4. Which one of the following structural relationships in the model is a behavioral relationship?

- a. Sales depend on the number of sunny days.
- b. Total cost is the amount of labor utilized times the wage rate.
- c. Profits are the difference between sales and cost.
- d. The wage rate is determined entirely by the union.

___ 5. Which one of the following structural relationships is an identity?

a. The amount of laborers who show up for work depends on the wage rate.

b. Profits are the difference between sales and cost.

c. Sales depend on the number of sunny days.

d. The number of sunny days is exogenously given.

___ 6. Identify the reduced form equation for P:

a. $P - S - C$

b. $P = bN - WL$

c. $P = bN - aW^2$

d. $P = C - bN$

___ 7. Suppose $N = 180$, $W = 20$, $a = 8$ and $b = 60$. What is the value of P?

a. 10,640

b. 9,520

c. 7,600

d. 6,000

Now suppose that the wage rate depends on the wage the competing firm is offering (R, such that $W = cR$). This wage rate (R) is exogenously given. What is the impact of this addition to the above model?

___ 8. The number of exogenous variables:

a. changes to 3.

b. changes to 4.

c. changes to 5.

d. remains the same.

___ 9. The number of endogenous variables changes to:

a. 3

b. 4

c. 5

d. 6

___ 10. In terms of specification:

a. a variable previously exogenous is now endogenous.

b. a variable previously endogenous is now exogenous.

c. the previous variables are the same, but an additional identity is now provided.

d. a previous identity is now a behavioral equation.

___11. What is the altered reduced form equation for P?

a. $P = bN - c^2R^2$

b. $P = bN - ac^2R^2$

c. $P = bN - WL$

d. $P = bN - aW^2$

___12. Suppose that the competing firm is offering a wage rate $R = 25$ and $c = .6$. What is the value of P in the revised model?

a. 10,800

b. 9,575

c. 9,000

d. 7,600

**Problem 2-B**

Construct a model around the following situation:

> Labor markets have frequently been an area of interest in policy discussions because of their relationship to unemployment. Unemployment (U) is the difference between the supply of labor (S) and the demand for labor (D). The demand for labor depends upon commodity prices (P) and the prices of other inputs (I). The supply of labor depends upon the wage rate (W) and the availability of workers (A). Commodity prices, the prices of other inputs, the wage rate, and the availability of workers are determined by factors outside the model.

___ 1. This model has how many endogenous variables:

- a. 2
- b. 3
- c. 4
- d. 5

___ 2. This model has how many exogenous variables:

- a. 2
- b. 3
- c. 4
- d. 5

___ 3. Which of the following structural relationships is an identity?

- a. Unemployment is the difference between the supply of labor and the demand for labor.
- b. The wage rate is determined by factors outside the model.
- c. The demand for labor depends upon commodity price.
- d. The availability of workers is exogenous to the model.

___ 4. Of the above structural relationships, which is a behavioral relationship?

- a. a
- b. b
- c. c
- d. d

___ 5. In terms of specification, the labor market model:

a. has more structural relationships than it has endogenous variables.

b. has fewer structural relationships than it has endogenous variables.

c. has exactly the same number of behavioral relationships as it has identities.

d. has as many structural relationships as it has endogenous variables.

Suppose the following explicit equations describe the labor market model:

$U = S - D$

$D = 1 + .4P + .5(I)$

$S = 2 + .8W + .4A$

___ 6. Identify the reduced form equation for U:

a. $U = S - D$

b. $U = 3 + .4P + .5(I) + .8W + .4A$

c. $U = 1 + .8W + .4A - .4P - .5(I)$

d. $U = .8W + .4A - .4P - .5(I)$

___ 7. Suppose $W = 100$, $A = 300$, $P = 20$, $I = 80$, what is the value of U?

a. 249

b. 169

c. 153

d. 45

Now suppose that commodity prices are dependent on the demand for goods (G) and the wage rate depends upon the percent unionization in the area (Z). The demand for the goods and the unionization figures are exogenously given. What is the impact of this addition to the model?

___ 8. The number of endogenous variables changes to:

a. 3

b. 4

c. 5

d. 6

___ 9. If we assume that $W = .6Z$ and $P = .5G$, what is the altered reduced form equation for U?

a. $U = 1 + .48Z + .4A - .2G - .5(I)$

b. $U = 3 + .48Z + .4A - .2G - .5(I)$

c. $U = 1 + .8W - .6Z + .4A - .4P + .5G - .5(I)$

d. $U = 3 + .8W - .6Z + .4A - .4P + .5G - .5(I)$

___10. In terms of specification:

a. the model has not changed; there are as many structural relationships as there are endogenous variables.

b. there are now more structural relationships than endogenous variables.

c. there are now more structural relationships than endogenous variables.

d. the previous variables are the same, but an additional identity is provided.

___11. Suppose Z = 50 and G = 100, what is the value of U in the revised model?

a. 173

b. 123

c. 106

d. 85

## Problem 2-C

Construct a model around the following situation:

Mr. Simmons is a buyer for Lord & Taylor's ladies apparel. He is allocated a certain income (Y) with which to make purchases at the designers' showing. This year he has been assigned to purchase only dresses (D) or pantsuits (P). The number of dresses (D) he purchases depends on the evening wear collection (E) and the sportswear selection (S). The number of pantsuits (P) he purchases depends on the previous year's customer demand (C) for pantsuits. Assuming he spends his entire income at the showing, his total cost or income must equal the value of the dresses he purchases plus the value of the pantsuits. In particular, $Y = P_D D + P_P P$. The prices of the items of clothing and the evening wear and sportswear collections are determined solely by the designers.

___ 1. This model has how many endogenous variables:

a. 2

b. 3

c. 4

d. 5

___ 2. This model has how many exogenous variables:

a. 2

b. 3

c. 4

d. 5

___ 3. Which of the following structural relationships is an identity?

a. The number of pantsuits purchased is related to last year's customer demand.

b. The total cost equals the value of the items purchased.

c. The prices of the items of clothing are determined by the designer.

d. The previous year's customer demand is determined outside the model.

___ 4. Which of the above structural relationships is a behavioral relationship?

a. a

b. b

c. c

d. d

Suppose the following explicit equations describe the above example:

$Y = P_D D + P_P P$
$D = .6E + .4S$
$P = .8C$

___ 5. Identify the reduced form equation for Y

a. $Y = P_D D + P_P P$
b. $Y = .6E + .4S + .8C$
c. $Y - (.6E + .4S)D + (.8C)P$
d. $Y = (.6E + .4S)P_D + (.8C)P_P$

___ 6. Suppose $P_D = \$100$, $P_P = \$80$, $E = 20$, $S = 15$, and $C = 70$. What is the value of Y?

a. $6280
b. $7400
c. $9040
d. $9100

Suppose Lord and Taylor budgets Mr. Simmons to $8000 for the showing. What is the impact of this addition to the above model?

___ 7. The number of endogenous variables

a. changes to 2.
b. changes to 3.
c. changes to 4.
d. remains the same.

___ 8. The number of exogenous variables:

a. changes to 4.
b. changes to 5.
c. changes to 6.
d. remains the same.

___ 9. In terms of specification:

a. a variable previously endogenous is now exogenous.
b. a variable previously exogenous is now endogenous.
c. the previous variables are the same, but an additional behavioral equation is provided.
d. the previous variables are the same, but an additional identity is provided.

___10. Is this altered model exactly identified?

a. Yes, the number of endogenous variables equals the number of equations.

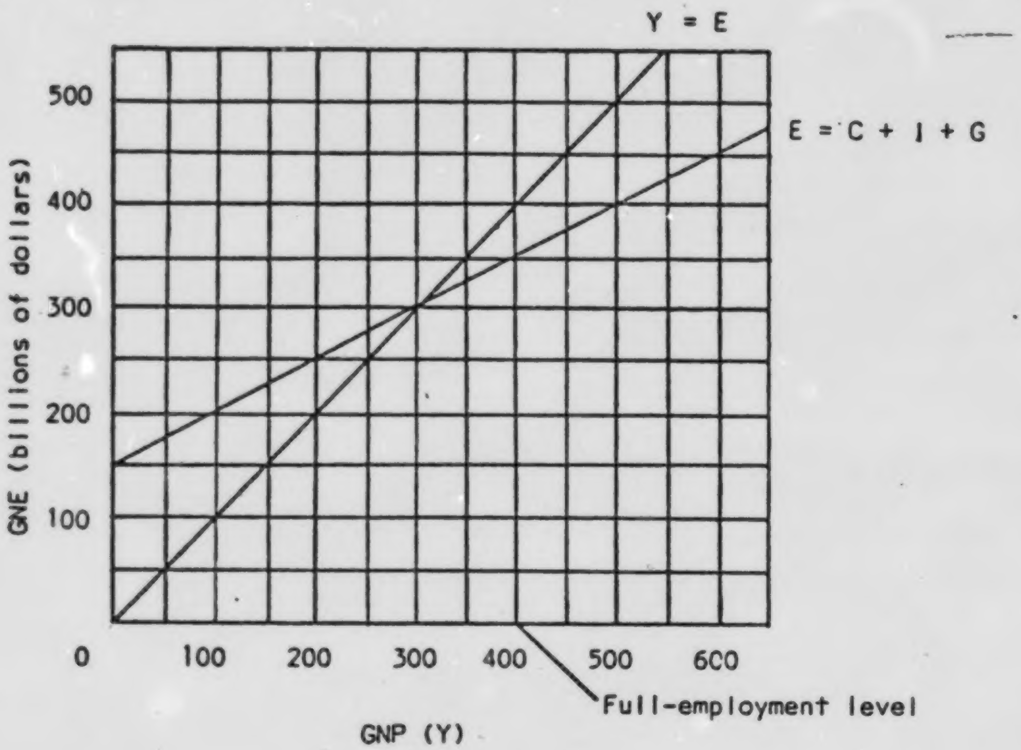
b. Yes, the number of exogenous variables equals the number of equations.

c. No, the number of equations is greater than the number of endogenous variables.

d. No, the number of equations is less than the number of endogenous variables.

**Problem 4-A** (accompanies A/K/L 4.1.3)

Below is a graph of an aggregate-demand schedule for a hypothetical economy, showing an estimated full-employment level of 400 GNP.



a. What will be the actual GNP level in equilibrium? ____________

b. How big is the gap between actual and potential, or full-employment, GNP? (*Hint: Measure along the horizontal axis.*) ____________

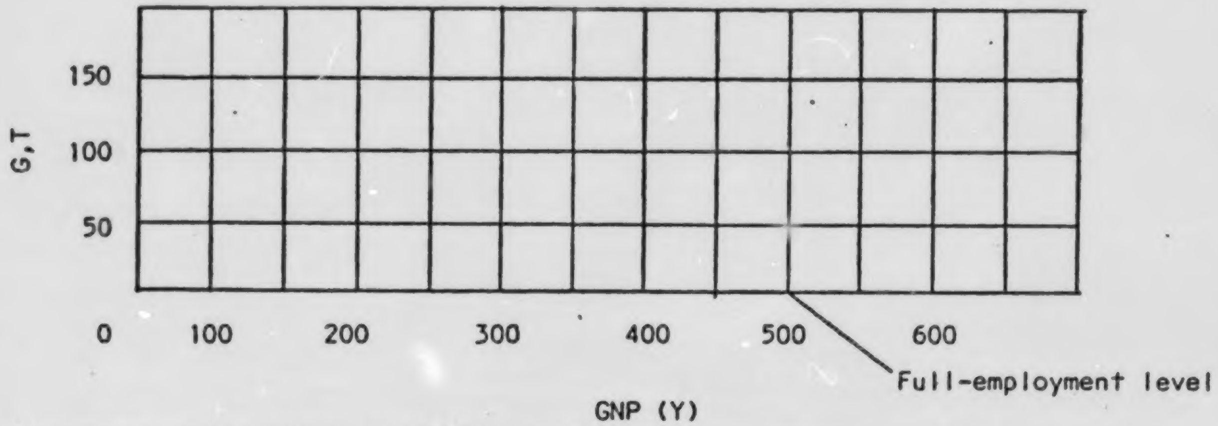
c. How much of an increase in aggregate demand would be needed to move GNP from actual to full-employment GNP? (*Hint: Measure along the vertical axis.*) ____________

d. Explain in a few words why your answer to (c) is different from your answer to (b).

e. What fiscal policy measures would be appropriate in this situation?

**Problem 4-B** (accompanies A/K/L 4.3.1.)

Say that, for all levels of income, G will be \$100 billion and net taxes (taxes minus transfer payments) will be .25Y. Plot G and T on the graph below, and answer the questions. Suppose that the full-employment level of GNP is \$500 billion.



a. The budget will be balanced at a GNP of ________________.

b. At GNP of \$200 billion, the budget will show a (deficit/surplus) of

________________.

c. At full-employment GNP, the budget will show a (deficit/surplus) of

________________.

d. From the information given above, can we determine the equilibrium level of GNP? ________________.

## Problem 4-C (accompanies A/K/L 4.1.3.)

## How a Fiscal Shot in the Arm Worked

Here is how the CEA in its Economic Report of 1964 described the way the gap of almost $30 billion between actual and potential GNP would be closed by the 1964 tax cut. (Personal income-tax rates were cut across the board from brackets of 18-91 percent to 14-70 percent. Corporate profit tax rates were cut from 30 to 22 percent of the first $25,000 and from 52 to 48 percent of the excess over $25,000.)

> The process by which an $11.1 billion tax cut can add as much as $30 billion to total demand has been frequently described and needs only to be summarized briefly here.
>
> If the new proposed personal income tax rates were in full effect today, disposable after-tax incomes of consumers would be approximately $8.8 billion higher than they are, at present levels of pretax incomes. In addition, if the lower corporate tax rates were now in effect, after-tax profits would be about $2.3 billion higher. Based on past dividend practice, one can assume that corporate dividends received by individuals (after deducting personal income taxes on such dividends) would then be more than $1 billion higher, giving a total increment of consumer after-tax incomes -- at present levels of production -- of about $10 billion.
>
> Since consumer spending on current output has remained close to 93 percent of disposable income in each of the past dozen years, one can safely project that consumer spending would rise by about 93 percent of the rise in disposable incomes, or by over $9 billion . . .
>
> But this is far from the end of the matter. The higher production of consumer goods to meet this extra spending would mean extra employment, higher payrolls, higher profits and higher farm and professional and service incomes. This added purchasing power would generate still further increases in spending and incomes in an endless, but rapidly diminishing, chain. The initial rise of $9 billion, plus this extra consumption spending and extra output of consumer goods would add over $18 billion to our annual GNP -- not just once, but year-in and year-out, since this is a permanent, not a one-shot tax cut. We can summarize this continuing

> process by saying that a "multiplier" of approximately 2 has been applied to the direct increment of consumption spending.
>
> But that is not the end of the matter either. For the higher volume of sales, the higher productivity associated with fuller use of existing capacity, and the lower tax rates on corporate profits also provided by the tax bill, would increase after-tax profits, and especially the rate of expected after-tax profit on investment in new facilities. Adding to this the financial incentives embodied in last year's tax changes, which are yet to have their full effect, one can expect a substantial induced rise in business plant and equipment spending, and a rise in the rate of inventory investment. Further, higher consumer incomes will stimulate extra residential construction; and the higher revenues that state and local governments will receive under existing tax rates will prompt a rise in their investments in schools, roads, and urban facilities. The exact amount of each of these increases is hard to estimate with precision. But it is reasonable to estimate their sum as in the range of $5 to $7 billion. This extra spending would also be subject to a multiplier of 2 as incomes rose and consumer spending increased. Thus there would be a further expansion of $10 to $14 billion in GNP to add to the $18 billion or so from the consumption factor alone. The total addition to GNP would match rather closely the estimated $30 billion gap.

The tax cut worked very much as predicted. Later, inflationary difficulties came from the second shot in the arm, an increase of over $28 billion from 1965 to 1968 in federal defense expenditures mostly reflecting the Vietnam escalation.

*Questions*

1. Write the equation for the CEA's marginal propensity to consume out of disposable income. ____________________
2. The CEA assumes that incremental withdrawals are about what fraction of incremental incomes? ____________________
3. How could a reduction of corporate income tax rates result in an increase of disposable personal income?

4. Total increase in disposable income predicted from the tax cut is ________________________. Total increase in consumer spending predicted initially from the tax cut is ____________________. When multiplied it would add how much to the GNP? ______________.

5. For what reason does the CEA also predict a rise in investment to occur?

6. Why does the Council expect state and local governments to increase their spending?

7. Total anticipated increases from 5 and 6 above, when multiplied, are predicted to add how much to GNP?________________________________

8. Total rise in GNP predicted from the tax cut is _______________

## Problem 4-D (accompanies A/K/L 4.4.4. - 4.4.5.)

## Fiscal Drag and the Full-Employment Surplus

The arguments of the Council of Economic Advisers on behalf of the tax cut of 1964 made explicit use of the analysis of this and preceding chapters. The terms "fiscal drag" and "full-employment surplus" even seem to have originated with economists in the Kennedy administration, to describe the need for a less restrictive fiscal policy to reduce unemployment and stimulate economic growth.

The CEA's *Economic Report of the President* for 1964 described the concept of the full-employment surplus thus:

> The economic impact of a given budget program is best measured by its surplus or deficit at full-employment income levels. The surplus in the full-employment budget is too large when the Government demand contained in the budget, and private investment and consumption demands forthcoming from after-tax incomes, are insufficient to bring total output to the full-employment level. The actual budget will then show a smaller surplus or larger deficit than the full employment . . .
>
> In a growing economy, periodic budget adjustments are required to maintain adequate expansion of total demand. The volume of tax revenues rises as incomes grow if tax rates remain unchanged. At present tax rates, the revenues that the Federal Government would collect at full employment increase by more than $6 billion a year. If program needs do not require expenditures to grow at the same rate, tax rates must be reduced, or a growing full-employment surplus will result, with increasingly restrictive effects on the economy.
>
> In the past this very process has been a major factor in slowing expansions and precipitating downturns. Thus, the consequences of excess potential surpluses have been large actual deficits, unemployment, and inability to achieve steady growth.
>
> To avoid these consequences, an appropriate expansion-promoting fiscal program would call for tax and expenditure policies that prevent a constrictive rise in the full-employment surplus. The experience of the past 10 years has illustrated the tendency of full-employment surplus to build up to expansion-retarding levels as the economy grows. The tax reductions of 1964 will be a giant step to remove a burdensome fiscal restraint before the economy levels off or goes into a recession, and to provide a framework for continued vigorous growth.

Here are some figures with which the Council illustrated their point:

| | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 |
|---|---|---|---|---|---|---|---|
| Full-employment (+ or -) surplus or deficit | +4.0 | +6.5 | +12.5 | +8.0 | +6.0 | +8.0 | +4.0 |
| Actual surplus or deficit | -9.4 | -1.1 | + 3.5 | -4.5 | -4.3 | -2.8 | -3.0 |
| GNP, current prices | 447 | 484 | 504 | 520 | 560 | 589 | 629 |
| Potential GNP[a] | 485 | 502 | 519 | 537 | 556 | 577 | 599 |
| Actual GNP[a] | 447 | 476 | 488 | 497 | 530 | 551 | 581 |

[a] 1958 prices.

*Questions*

1. How do you account for the fact that the actual budget never had a surplus even close to the so-called "full-employment surplus" in any of the years given?

2. If fiscal policy is unchanging from year to year in its spending totals and in its tax structure, why might the "full-employment" surplus continue to grow larger? What is the proper remedy, according to the CEA?

3. In 1958, the Eisenhower administration drew up a budget that was expected to balance. What could have caused such a surpising deficit instead?

4. U. S. Federal Budget (in billions); Unemployment and Inflation Rates 1969 - 1973

| Year | Actual Budget Surplus | Change from Previous Year | Full-employment Surplus | Change from Previous Year | Unemployment Rate | CPI (1967=100) |
|---|---|---|---|---|---|---|
| 1969 | 8.1 | - | 8.8 | - | 3.5 | 109.8 |
| 1970 | -11.9 | -20.0 | 4.0 | - 4.8 | 4.9 | 116.3 |
| 1971 | -22.1 | -10.2 | -2.1 | - 6.1 | 5.9 | 121.3 |
| 1972 | -15.9 | + 6.2 | -7.7 | - 5.6 | 5.6 | 125.3 |
| 1973 | .6 | +16.5 | 5.8 | +13.5 | 4.9 | 133.1 |

a. Judging from the figures above, how could the actual government deficits from 1970 to 1972 be explained?

# ANSWERS

## Problem 2-A

1. C
2. A
3. D
4. B
5. B
6. C
7. C
8. D
9. C
10. A
11. B
12. C

## Problem 2-B

1. B
2. C
3. A
4. C
5. D
6. C
7. C
8. C
9. A
10. A
11. D

## Problem 2-C

1. B
2. D
3. B
4. A
5. D
6. A
7. A
8. C
9. A

### Problem 4-A

a. 300 GNP

b. 100 GNP

c. 50 GNE

d. An increase in GNE of 50 stimulates an increase in GNP of 100 since the slope of the aggregate demand line is 1/2 (this indicates a multiplier of $\frac{1}{1-1/2}$ , or 2.)

e. The fiscal policy measures suggested by this situation are:

   1. An increase in government spending of 50 with taxes held at their present level.

   or 2. A tax reduction equalling 100 with government expenditure held at its present level.

### Problem 4-B

a. \$400 billion

b. deficit; \$50 billion

c. surplus; \$25 billion

d. No. Equilibrium GNP occurs where total expenditures equal total income. The graph above does allow us to determine which level of GNP makes G = T, but that may or may not be the equilibrium level of GNP.

### Problem 4-C *How a Fiscal Shot in the Arm Worked*

1. MPC = $\frac{\Delta C}{\Delta Y_d} = .93$

2. 1/2

3. after-tax income rises, permits larger dividends to shareholders

4. about \$10 billion; \$9+ billion; \$18+ billion

5. higher profits, higher expectations of demand from tax cut, increase in residential construction from more prosperous households.

6. Automatic increase in local tax revenues from rising spending will permit them to spend more.

7. \$10-14 billion

8. \$30 billion

## Problem 4-D: *Fiscal Drag and the Full Employment Surplus*

1. Actual GNP was well below potential full-employment GNP. Incomes were below full-employment levels, so that tax revenues were low also.
2. Normal annual growth of GNP and incomes -- even at less than full employment -- means that tax revenues automatically rise. This growth also shifts the target potential GNP to a higher level.
3. Recession prevented normal growth in incomes, so tax revenues failed to rise as expected. (To avoid a budget deficit, President Eisenhower directed a decrease in government expenditure -- not realizing that this, in turn, would cause a decrease in tax revenues resulting in an actual budget deficit.)
4. a. From 1969 to 1971 the full employment surplus shifted by 10.9 (from 8.8 to -2.1). The drop to below full employment could account for the rest of the 30.2 swing (from 8.1 to -22.1). Somewhat improved employment overcame further shift toward F.E. deficit in 1972.
    b. Because unemployment is higher than the 4 percent full employment level.
    c. The shift of +13.2 in the full employment surplus (7.7 + 5.8). It was intended to combat inflation.

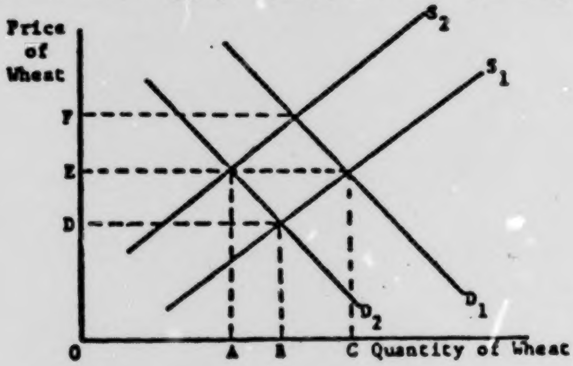
# TIPS SURVEY 1.1

**Name:**______________________ **Social Security #:**______________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

## Market Behavior

Answer questions 1 through 5 on the basis of the following diagram which shows demand and supply conditions in the competitive market for wheat.



___1. If the initial demand and supply curves are $D_1$, and $S_1$, equilibrium price and quantity will be:
1) OE and OB
2) OE and OA
3) OE and OC
4) OD and OB

___2. If the supply curve moved from $S_1$ to $S_2$, this implies:
1) supply has increased and price has risen to OF.
2) supply has decreased and equilibrium quantity has decreased.
3) supply has increased and equilibrium quantity has decreased.
4) there has been an increase in the quantities supplied and demanded.

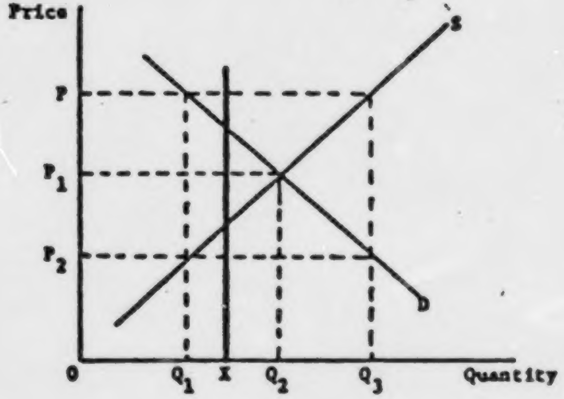
___3. If supply is $S_2$ and demand $D_1$, then
1) OE might represent a price ceiling which would result in a shortage of AC.
2) OE might represent a price support which would result in a surplus of AC.
3) OC will be sold given the desires of producers to maximize sales given a fixed price.
4) OA will be sold, since buyers will be unwilling to accept the higher price dictated by the intersection of $S_2$ and $D_1$.

___4. Other things being unchanged (ceteris paribus), a movement of the demand curve from $D_1$ to $D_2$ might be caused by:
1) a decline in the price of the basic raw material used in producing wheat.
2) an increase in the price of wheat.
3) an increase in the price of corn.
4) a decline in buyers' incomes.

___5. Other things being unchanged (ceteris paribus), a movement of the supply curve from $S_1$ to $S_2$ might be caused by:
1) a decline in the price of the basic raw material used in producing wheat.
2) an increase in the price of wheat.
3) An increase in the price of farm machinery used to harvest wheat.
4) an increase in buyers' incomes.

Answer questions 6-8 on the basis of the following economic situation.

The government has imposed a price support and a supply limitation on the orange growing industry. This agricultural price support scheme specified that the total supply for the entire industry could only be OX, as represented in the graph below. The support price set by the government is OP. Since D is the demand curve for oranges, consumers will purchase $OQ_1$, units of oranges.



___6. What quantity of oranges will the government have to purchase so there will be no excess supply within the context of its total agricultural program.
1) $XQ_3$
2) $Q_1X$
3) $OQ_2$
4) $Q_1Q_2$

___7. If there was a price support, but no supply limitation, what would be the amount of excess supply?
1) $Q_1X$
2) $XQ_3$
3) $Q_1Q_2$
4) $Q_1Q_3$

___8. If there were no supply limitations or price supports, what would be the prevailing price and quantity for the product?
1) $OP_2$, $OQ_3$
2) OP, OX
3) $OP_1$, $OQ_2$
4) OP, $OQ_1$

___9. A recent cold spell in Florida has done extensive damage to the citrus crop. As a result, California citrus products are commanding high prices. Which of the following statements best explains the situation?
1) The supply of Florida oranges has decreased, causing the supply of California oranges to increase and their prices to rise.
2) The supply of Florida oranges has decreased, causing their price to increase and the demand for the substitute California oranges to also increase.
3) The demand for Florida oranges has been reduced by the freeze, causing a greater demand for the California oranges and an increase in their price.
4) The demand for Florida oranges has been reduced, causing their prices to fall and therefore increasing the demand for the substitute California oranges.

## National Product--Definition and Accounting

___10. The sum of all expenditures for final goods and services is the equivalent of:
1) all income paid out as wages and salaries.
2) the amount of money in circulation.
3) the total of all "values added"
4) disposable income.

___11. Which of the following is not a primary factor of production?
1) labor
2) profits
3) land
4) capital

___12. The concept of "income" refers to:
1) the total receipts for all final goods and services.
2) the payments to all inputs.
3) the value of intermediate goods and services.
4) the payments made for the resources which owners supply in the production of output.

___13. Gross National Product equals:
1) gross national expenditure but not gross national income.
2) the sum of investment and consumption expenditure.
3) gross government expenditure.
4) both gross national expenditure and gross national income.

## Nominal and Real GNP

___14. The change in real GNP and the change in nominal GNP differ because the change in real GNP:
1) excludes capital consumption allowances.
2) is adjusted for changes in the price level.
3) is adjusted for changes in the volume of intermediate transactions.
4) is adjusted for changes in product quality.

___15. If a price index has a value of 126 in the current year, then:
1) prices are 126 percent higher on average than in the base year.
2) prices are .126 times higher on average than in the base year.
3) prices are 26 percent higher on average than in the base year.
4) money (nominal) GNP must be inflated to determine real GNP.

___16. A food cooperative recently argued that the standard of living of its members was falling. A critic argued this could not be true because the members had been acquiring significant increases in their nominal incomes. Could the critic be correct?
1) Yes, if consumer price increases are less than increases in nominal incomes.
2) Yes, if the coop members initially have large nominal incomes.
3) No. Real incomes may fall if consumer price increases are less than increases in nominal incomes.
4) Yes. Real incomes will rise as nominal incomes rise, causing greater purchasing power.

## Actual and Potential GNP

__17. The rate of output that would result if the economy's labor were fully utilized is called:
1) GNP gap
2) labor productivity
3) actual GNP
4) potential GNP

__18. An Economics 1 student, employed as an intern at the Council of Economic Advisors, provided his boss with a graph showing Actual GNP exceeding Potential GNP for a period of six months over the period 1955-1977. Is it possible for his graph to be correct?
1) Yes, because there is a systematic bias during periods of full employment for real (deflated) actual GNP to be overstated when referenced to nominal potential GNP.
2) Yes, because conceptually potential GNP can be exceeded.
3) No, since there is a systematic bias during periods of full employment for nominal actual GNP to be overstated when referenced to real (deflated) potential GNP.
4) No, because it is not conceptually possible to have more than the potential level of GNP.

__19. The schedule of "Potential GNP" can shift upward if there is:
1) an increase in the level of "structural" unemployment.
2) an increase in the proportion of the labor force which is productively employed, unemployment rates remaining constant.
3) a decrease in the level of "frictional" unemployment.
4) a decrease in the ratio of output per laborer, adjusted for changes in the utilization of capital.

## Economic Policy Making

__20. The unemployment rate in Washington, D.C. is 11%. In order to stimulate employment, the government has increased expenditures on various work programs and subsidized existing job training programs. In reviewing the above economic policy, identify the government's "target variable."
1) unemployment rate
2) work programs
3) government expenditures
4) job training programs

## ANSWER KEY

| | |
|---|---|
| 1. | 3 |
| 2. | 2 |
| 3. | 1 |
| 4. | 4 |
| 5. | 3 |
| 6. | 2 |
| 7. | 4 |
| 8. | 3 |
| 9. | 2 |
| 10. | 3 |
| 11. | 2 |
| 12. | 4 |
| 13. | 4 |
| 14. | 2 |
| 15. | 3 |
| 16. | 1 |
| 17. | 4 |
| 18. | 2 |
| 19. | 3 |
| 20. | 1 |

# TIPS SURVEY 2.1

Name:______________________________Social Security #:_______________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

## The Structure of the Model

___1. The term "endogenous" variable refers to:
1) a variable in a model whose values are determined outside the model.
2) a variable in a model the behavior of which the model is intended to explain and the values of which are determined within the model.
3) a term in a model the value of which is constant and does not depend on the values of the other variables in the model.
4) a term in a model which holds true by definition.

___2. In question 1 which of the following refers to the term "exogenous" variable:
1) 1
2) 2
3) 3
4) 4

___3. To say that a structural relationship is an identity means that:
1) it describes the behavior of some agents in the economy with respect to the variables involved.
2) it describes how the value of the exogenous variables depends on that of the endogenous variables.
3) all of the variables in the model are constant.
4) the structural relationship is true by definition.

___4. To say that a structural relationship is behaviorial means which of the following in question 3?
1) 1
2) 2
3) 3
4) 4

___5. Define a reduced form equation:
   1) An equation derived from the structural form of a model, which expresses an endogenous variable in terms of known exogenous variables and parameters.
   2) A relation describing how the value of one endogenous variable depends on that of other endogenous and/or exogenous variables.
   3) An equation derived from the structural form of a model, which expresses the values of the endogenous variables.
   4) An equation which has as many exogenous variables as it does endogenous variables.

___6. Identify in question 5 which of the following best describes structural relationships.
   1) 1
   2) 2
   3) 3
   4) 4

___7. The solution to a model is:
   1) a set of relationships such that the number of endogenous variables is equal to the number of equations in the model.
   2) a set of relationships such that there is a complete and logically consistent set of equations contained in the model.
   3) a set of values for the endogenous variables for which all the relationships making up the model will hold true.
   4) a set of values for the exogenous variables for which all the relationships making up the model will hold true.

## The Consumption Function

___8. The consumption schedule shows:
   1) that consumption depends primarily on the level of business investment.
   2) that households consume more when interest rates are low.
   3) that the MPC increases in proportion to NNP.
   4) the amounts households plan or intend to consume at various possible income levels.

___9. Using C to denote consumption expenditure and $Y_d$ to denote disposable personal income, which of the following equations expresses the usual consumption relationship? (assuming $a,b>0$)
   1) $C = aY_d$
   2) $C = a - bY_d$
   3) $C = a + bY_d$
   4) $C = bY_d - a$

__10. In the consumption equation, identify the parameters:
1) a, $Y_d$
2) a, b
3) C, $Y_d$
4) a

__11. The MPC can be defined as:
1) that fraction of a given total income which is consumed.
2) that fraction of a given total income which is not consumed.
3) that fraction of a change in income which is spent.
4) that fraction of a change in income which is not spent.

__12. If the consumption schedule is a straight line, it can be concluded that:
1) the multiplier is one.
2) the multiplier is measured by the ratio $C/Y_d$.
3) the MPC is constant at various levels of income.
4) the MPC increases as income rises.

Simple Model Construction

Construct a model around the following situation:

Each Duke Student must chose to allocate the total time in the 24 hour day between three competing activities: academic activities (A), leisure-time activities (L), and eating and sleeping (S). These activities occupy all of the student's time. The amount of time the student spends on academic activities depends on his desire for high grades (G), and the amount of time he enjoys leisure depends on his income (Y). His desires for grades, and his income, are determined by factors outside the model.

__13. This model has how many endogenous variables.
1) 2
2) 3
3) 4
4) 5

__14. This model has how many exogenous variables.
1) 2
2) 3
3) 4
4) 5

__15. Identify one of the parameters in this model.
1) amount of time spent studying
2) total hours in the day
3) the student's income
4) the amount of time spent in leisure activities

__16. Which of the following structural relationships is an identity?
1) Total hours allocated between A, L, and S equals 24.
2) The amount of time spent studying depends upon the student's desires for high grades.
3) The amount of time spent eating is related to the student's needs for nourishment.
4) The influence of the student's peers affects the amount of time spent in leisure activities.

Suppose the following explicit equations describe the above example:

$24 = A + L + S$
$A = 2 + .5G$
$L = 5 + .25Y$

__17. Identify the reduced form equation for S.
1) $S = 24 - A - L$
2) $S = 24 - .5G - .25Y$
3) $S = 31 + .5G + .25Y$
4) $S = 17 - .5G - .25Y$

__18. Suppose $G = 10$ and $Y = 16$ ; what is the value of S?
1) 6
2) 8
3) 11
4) 15

## ANSWER KEY

1. 2
2. 1
3. 4
4. 1
5. 1
6. 2
7. 3
8. 4
9. 3
10. 2
11. 3
12. 3
13. 2
14. 1
15. 2
16. 1
17. 4
18. 2

# TIPS SURVEY 2.2

**Name:**____________________________**Social Security #:**____________________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

## Income - Expenditure Model

In analyzing the determination of national income and expenditure, it is necessary to begin with a highly simplified model. The variables included are consumption (C), government expenditure (G), net taxes (T), investment expenditure (I), disposable personal income ($Y_d$), gross national expenditure (E), and gross national income (Y), where G, T, and I are determined outside the model. The following explicit equations describe the model.

(1) $C = a + bY_d$
(2) $Y_d = Y - T$
(3) $E = C + I + G$
(4) $Y = E$

___1. This model has how many endogenous variables?
1) 2
2) 3
3) 4
4) 5

___2. This model has how many exogenous variables?
1) 2
2) 3
3) 4
4) 5

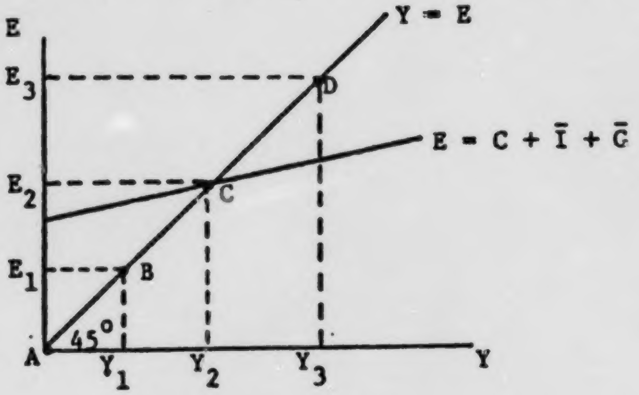
___3. Identify one of the parameters in this model.
1) C
2) b
3) G
4) E

___4. Which of the above structural equations is a behavioral equation?
1) 1
2) 2
3) 3
4) 4

___5. In terms of specification, this model:
1) has fewer structural equations than endogenous variables.
2) has more structural equations than endogenous variables.
3) has the same number of behavioral equations as endogenous variables.
4) has as many structural equations as it has endogenous variables.

___6. The 45-degree line on a chart which relates total expenditure and income shows:
1) the amounts households will plan to consume at each level of income.
2) all points where the MPC is constant.
3) all points at which saving and income are equal.
4) all points at which total expenditure and income are equal.

___7. Given the following graph, identify that point which represents a combination of E and Y for which all four structural equations will hold true.



1) A
2) B
3) C
4) D

___8. An economy is in equilibrium:
1) when there is no tendency for the variables involved to change.
2) when there is a tendency for the endogenous variables to change.
3) when there is a tendency for one of the exogenous variables to be in excess.
4) when there is a tendency for one of the exogenous variables to be insufficient.

___9. Suppose C = \$120 + $.6Y_d$, I = \$50, G = \$200, and T = 0, the equilibrium level of income is:
1) \$1350
2) \$925
3) \$850
4) \$370

___10. From the data above, the equilibrium value of consumption is:
1) \$380
2) \$485
3) \$675
4) \$750

___11. If initially C = \$200 + .8(Y-T), I = \$125, T = \$25 and G = \$250, what is the equilibrium level of income?
1) \$2875
2) \$2775
3) \$2750
4) \$2400

___12. What would be the change in equilibrium income caused by a \$30 decrease in investment?
1) -150
2) -50
3) +50
4) +150

___13. What would be the new equilibrium income level if taxes were reduced from \$25 to \$15?
1) \$2950
2) \$2935
3) \$2815
4) \$2735

___14. If C = \$80 + $.6Y_d$, then the marginal propensity to consume is:
1) 2.50
2) 1.67
3) .60
4) .40

___15. If $Y_d$ is equal to \$2000 in question 14, then consumption will be:
1) \$800
2) \$1080
3) \$1200
4) \$1280

__16. The multiplier:
1) is measured by the slope of the consumption schedule.
2) only occurs when intended investment increases.
3) can be found by taking the reciprocal of the MPC, i.e., 1/MPC.
4) can be found by taking the reciprocal of 1 - MPC, i.e., 1/(1-MPC).

__17. If the MPC = .8, then an increase in government expenditure of $50 will increase equilibrium income by:
1) $250
2) $90
3) $50
4) cannot be determined from the information

The Economy in Disequilibrium

__18. To say that there has been unintended inventory disinvestment means that:
1) there has been a reduction of producer stocks of inventories of final goods below normal levels in order to meet sales.
2) there has been an increase of producer stocks of inventories of final goods because of a reduction of sales.
3) desired consumption, investment, or government expenditures have not been made because the commodities were unavailable.
4) increases in investment expenditures have not been made because producer stocks of inventories of final goods are too great.

__19. In question 18, which one of the following best defines unfilled orders?
1) 1
2) 2
3) 3
4) 4

__20. Autonomous investment expenditure refers to that part of investment that:
1) relates only to inventories.
2) is made by the government sector.
3) is directly related to the level of economic activity.
4) is not directly related to the level of economic activity.

**ANSWER KEY**

| | |
|---|---|
| 1. | 3 |
| 2. | 2 |
| 3. | 2 |
| 4. | 1 |
| 5. | 4 |
| 6. | 4 |
| 7. | 3 |
| 8. | 1 |
| 9. | 2 |
| 10. | 3 |
| 11. | 2 |
| 12. | 1 |
| 13. | 3 |
| 14. | 3 |
| 15. | 4 |
| 16. | 4 |
| 17. | 1 |
| 18. | 1 |
| 19. | 3 |
| 20. | 4 |

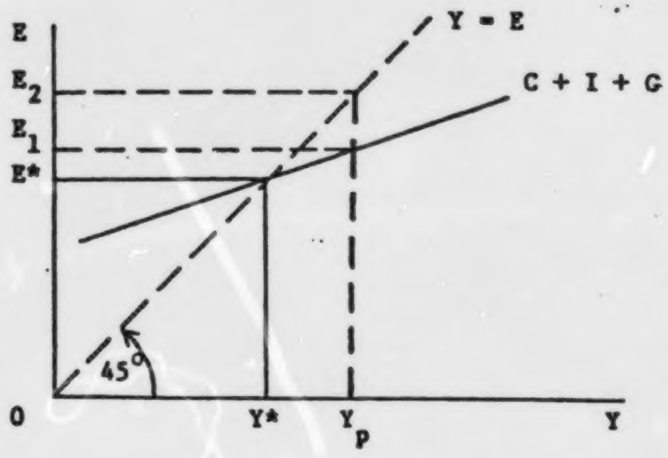
## TIPS SURVEY 3.1

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

### Aggregate Demand and Potential GNP

___1. The term aggregate demand is defined to be:
  1) the equilibrium level of investment.
  2) the equilibrium level of gross national expenditure.
  3) the equilibrium level of potential GNP.
  4) the equilibrium level of consumption expenditure.

___2. On the income-expenditure graph below, the GNP gap equals:
  1) $E_1E_2$.
  2) $E_1E^*$.
  3) $Y^*Y_p$.
  4) $OY^*$.



___3. Which best describes empirically the relationship between U.S. aggregate demand ($Y^*$), and U.S. potential GNP ($Y_p$) since 1930?
  1) $Y^*$ has frequently been less, but occasionally greater than $Y_p$.
  2) $Y^*$ has frequently been greater, but occasionally less than $Y_p$.
  3) $Y^*$ has deviated above and below $Y_p$ with about equal frequency.
  4) There does not seem to have been any systematic relationship between $Y^*$ and $Y_p$.

## Aggregate Demand and Unemployment

___4. Which of the following is the equation known as Okun's Law?
1) $U = U_f + c \times \%$ GNP Gap
2) $\%$ GNP Gap $= (1/c)(U - U_f)$
3) neither 1 nor 2 is Okun's Law.
4) both 1 and 2 represent Okun's Law.

Questions 5 and 6 are based on the following data about the U.S. economy.
Actual GNP = 910
Potential GNP = 1000
Full-employment unemployment rate = 5%
The 'c' parameter in Okun's Law = 1/3

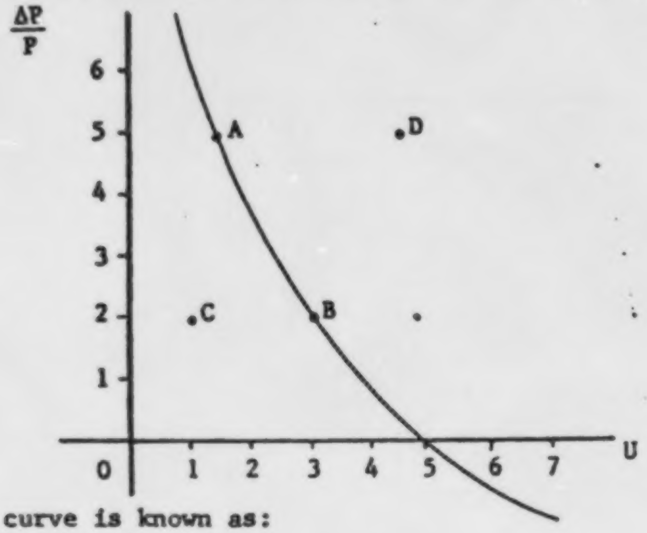
___5. What is the actual change in GNP required to bring about targeted unemployment rate?
1) -90
2) +90
3) -30
4) +30

___6. Based on Okun's Law, what is the 'actual' unemployment rate in this situation?
1) 2%
2) 3%
3) 8%
4) Not enough data is provided to derive the actual unemployment rate.

___7. In the U.S. economy between the 1960's and 1970's the proportion of the work force composed of women and teenagers increased. In analyzing this phenomenon using Okun's Law, one might observe that:
1) the 'c' parameter in Okun's Law has decreased.
2) the '$U_f$' variable in Okun's Law has decreased.
3) a given decrease in the GNP gap is likely to result in a larger reduction in unemployment in the 1970's than in the 1960's.
4) a given decrease in the difference between U and $U_f$ is likely to result in a larger reduction in unemployment in the 1970's than in the 1960's.

## Aggregate Demand, Inflation, and Policymaking

**Questions 8 through 14 will be based on the following curve:**



___8. This curve is known as:
1) the Okun Curve.
2) the labor-demand curve.
3) the wage rate - inflation curve.
4) the Phillips curve.

___9. This curve is best described:
1) by the formula $(\Delta P/P) = d + eU$.
2) as 'linear' in shape, as distinct from the 'curvilinear' shape in the graph.
3) as an empirical relationship which may shift or change in shape depending on economic conditions.
4) as a fairly rigorous theoretical model derived from underlying postulates about labor markets and macroeconomic theory.

___10. In terms of U.S. experience, this curve:
1) was reasonably fixed in position over the period 1960 - 1975, with one or two single-year deviations from the fixed position.
2) was somewhat erratic in shifting outward and inward over the period 1960 - 1975.
3) was relatively fixed in position during the 1960's, and then shifted inward during the 1970's.
4) was relatively fixed in position during the 1960's, and then shifted outward during the 1970's.

__11. A reduction in aggregate demand will tend to
1) shift the curve to the left.
2) shift the curve to the right.
3) move the economy from point A to point B.
4) move the economy from point B to point A.

__12. An increase in the world-wide rate of inflation is likely to bring about which of the effects in question 11?
1) 1
2) 2
3) 3
4) 4

__13. In using this curve for policy analysis, in the short-run, economists usually assume that the relevant choices are:
1) between A and B.
2) between C and D.
3) between moving from A to C, or moving from B to C.
4) between moving from A to D, or moving from B to D.

__14. Assuming the social welfare function is $W = -U - 5\ (\Delta P/P)$, the appropriate short-run policy recommendation would be a target $(U, \Delta P/P)$ at:
1) A.
2) B.
3) C.
4) D.

Inflationary Bias - the Expanded Model

__15. An inflationary bias in the U.S. economy is explained by the fact that:
1) the relative importance of markets where excess demand exceeds excess supply dominates, and overall there is a tendency for downward price rigidity.
2) the relative importance of markets where excess supply exceeds excess demand dominates, and overall there is a tendency for downward price rigidity.
3) the number of markets where outward shifts in the demand curve occur exceeds the number of markets where the demand curve is shifting inward.
4) the number of markets where outward shifts in the supply curve occur exceeds the number of markets where the supply curve is shifting inward.

__16. In terms of the expanded model of income and expenditure which now includes both Okun's Law and the Phillips Curve, it is possible to conclude that:

1) if aggregate demand exceeds potential GNP, the unemployment rate will be less than $U_f$, but there will be a positive rate of inflation.
2) if there is some change in aggregate demand, there will be a change in both the unemployment and inflation rates.
3) if aggregate demand exceeds potential GNP, there will be an unusually low unemployment rate and an unusually high inflation rate.
4) all of the above are accurate renderings of the expanded model.

## ANSWER KEY

| Questions | Answers |
|---|---|
| 1. | 2 |
| 2. | 3 |
| 3. | 1 |
| 4. | 4 |
| 5. | 2 |
| 6. | 3 |
| 7. | 3 |
| 8. | 4 |
| 9. | 3 |
| 10. | 4 |
| 11. | 3 |
| 12. | 2 |
| 13. | 1 |
| 14. | 2 |
| 15. | 1 |
| 16. | 4 |

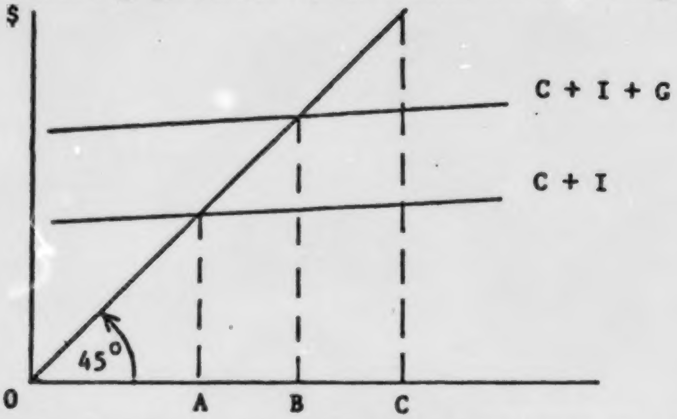
## TIPS SURVEY 4.1

Name:______________________________Social Security #:________________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

___1. Fiscal policy is a course of government action to influence the level of national output chiefly through:
  1) encouraging businessmen to make investments at certain critical times.
  2) regulation of the volume of trade.
  3) use of the government's taxing and spending powers to control total spending.
  4) expanding and contracting the money supply.

Answer the following questions on the basis of this diagram:



___2. If the target level of aggregate demand were OC, then it would be appropriate fiscal policy for government to:
  1) increase spending and decrease taxes.
  2) increase spending and increase taxes.
  3) decrease spending and decrease taxes.
  4) decrease spending and increase taxes.

___3. If the target level of aggregate demand were OA, which of the above fiscal policies would be appropriate?
1) 1
2) 2
3) 3
4) 4

___4. In a certain year the target level of aggregate demand is expected to be $280 billion. In this same year it is estimated that government expenditures will be $80 billion, taxes $60 billion, consumer expenditures $140 billion, private investment expenditures $80 billion, and saving $80 billion. This economy can be described as having:
1) a deflationary gap.
2) an inflationary gap.
3) a fiscal drag.
4) Okun's Law dilemma.

___5. In question 4 above, to effect the target level of output under these conditions, the government should:
1) encourage private investment by reducing corporate taxes.
2) increase government expenditures.
3) discourage personal saving.
4) increase tax rates.

___6. In using fiscal policy to combat inflation, we would see an appropriate effect from a given change in government expenditures if the government were to:
1) spend more and keep the budget deficit or surplus at its present level.
2) spend more and tax less.
3) spend more and keep tax rates constant.
4) spend less and keep the budget deficit or surplus at its present level.

___7. Assume the economy is in the midst of a severe recession. Which of the following policies would you favor?
1) a reduction in Federal tax rates on personal and corporate income.
2) a postponement of a highway construction program
3) a reduction in agricultural subsidies and veterans' benefits.
4) a Congressional proposal to incur a Federal surplus to be used for the retirement of the public debt.

___8. Increased taxes to finance a new project in a full-employment economy are best defended as:
1) a way to close a deflationary gap, thereby promoting full-employment equilibrium.
2) a way to create a self-liquidating deficit that will close the deflationary gap, thereby equalizing inflationary and non-inflationary tendencies.
3) a way to create a balanced budget, thereby resulting in long-run balanced growth.
4) a way to cut down on other spending to release needed resources, thereby minimizing inflation.

___9. Suppose an economy in which every family must pay taxes of $100 is operating at a non-inflationary target level of aggregate demand and the MPC is .75. The Federal government now finds that it must increase spending for military goods by $21 billion in response to a deterioration in the international political situation. In order to maintain the non-inflationary target level of aggregate demand, the government must:
1) reduce taxes by $21 billion.
2) increase taxes by $28 billion.
3) reduce transfer payments by $21 billion.
4) increase transfer payments by $28 billion.

## ANSWER KEY

| Question | Answer |
|---|---|
| 1. | 3 |
| 2. | 1 |
| 3. | 4 |
| 4. | 2 |
| 5. | 4 |
| 6. | 4 |
| 7. | 1 |
| 8. | 4 |
| 9. | 2 |

# TIPS SURVEY 4.2

**Name:**______________________________**Social Security #:**________________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

___1. How does the effect of an increase in investment spending on equilibrium income in a model where tax revenues are endogenous differ from the effect of that same change in a model where tax revenues are exogenous?
1) The effects are equal.
2) The stimulatory effect is smaller when taxes are endogenous.
3) The stimulatory effect is negative when taxes are endogenous.
4) The stimulatory effect is larger when taxes are endogenous.

___2. Built-in-stability refers to the fact that:
1) government expenditures and tax receipts automatically balance over the course of the business cycle, though they may be out of balance in any single year.
2) Congress will automatically change the tax structure and expenditure programs to correct upswings and downswings in business activity.
3) With given tax rates and expenditure policies, a rise in national income will tend to produce a surplus while a decline will tend to produce a deficit.
4) An annually balanced budget will automatically tend to offset the procyclical tendencies created by state and local finance and thereby stabilize the economy.

___3. The effectiveness of the built-in or automatic stabilizers is limited by the fact that:
1) Congress usually acts slowly in legislating changes in tax rates.
2) the stabilizers tend to raise the general price level regardless of the phase of the business cycle.
3) the offset to a change in private spending which the stabilizers provide is typically less than the change in private spending.
4) transfer payments and subsidies increase during booms and decrease during recessions.

___4. The full-employment budget surplus means:
   1) the budget surplus that would develop, given the existing tax rates and spending structure, if the economy were to be at its full-employment level.
   2) the excess of full-employment GNP over the present level GNP.
   3) the requirement of fiscal policy that there be a budget surplus at full employment.
   4) the rate of growth in GNP that is possible when full employment is maintained.

___5. The actual budget deficit of the Federal government in 1970 was about $13 billion. On the basis of this information:
   1) it can be concluded that fiscal policy was expansionary in 1970.
   2) it can be concluded that fiscal policy was contractionary in 1970.
   3) it cannot be determined whether fiscal policy had an expansionary or a contractionary impact in 1970, since the deficit could be associated with either a full-employment surplus or deficit.
   4) it cannot be determined whether fiscal policy had an expansionary or a contractionary effect because 1970 may have been a period when the GNP gap was either larger or smaller than the one predicted by Okun's Law.

___6. The tax cut of 1964 is believed by most economists to have demonstrated
   1) the effectiveness of changes in tax rates as a tool for fighting inflation.
   2) the effectiveness of changes in tax rates in removing a deflationary gap.
   3) the ineffectiveness of changes in tax rates in removing a full-employment deficit.
   4) the ineffectiveness of changes in tax rates in offsetting the fiscal drag.

___7. During the 1950's, President Eisenhower attempted to create a budgetary surplus by trimming government spending to the point that projected tax revenues exceeded planned government spending. Tax collections, however, turned out to be less than projected, and by the end of the year there was actually a deficit in the federal budget. What Eisenhower apparently failed to fully appreciate was that:
   1) Congressional Democrats could alter the income tax structure, thus creating a "fiscal drag."
   2) the reduced government spending would have a contractionary effect on output and income and thus reduce tax collections.
   3) there was likely to be a shifting of real incomes between the rich and the poor, and tax collections would decrease as a result.
   4) increased government spending was necessary in order to create a budgetary surplus.

Answer questions 8-11 on the basis of the following problem.

You are planning a visit to Outer Mongolia and will be working with their Central Economic Planning Unit, known as CE-PU. You have been given some materials before your trip and a set of problems to consider for the first day of meetings. The Outer Mongolian economists have provided a plan with the following model of their economy. (all figures in billions)

$C = 30 + (2/3) Y_d$

$Y_d = Y - T$

$E = C + \bar{I} + \bar{G}$, where $\bar{I}$ = investment expenditures = 200

$\bar{G}$ = government expenditures = 200

$Y = E$

The tax rate is 10 percent of income. ($T = .1Y$)

___8. Calculate the level of actual aggregate demand.
1) 1075
2) 2155
3) 3225
4) 4300

___9. Suppose that the President of Outer Mongolia has impounded (failed to spend) $1 billion in order to reduce government expenditures he considers inflationary. The legislators, upset by this move and fearing a recession, pass a tax cut of $1 billion. Assuming the tax system is exogenous instead of endogenous as described above, will the tax legislators succeed in offsetting the President's reductions?
1) Yes. The two policies will have a counterbalancing effect.
2) No. National income will fall by $1 billion due to the balanced budget multiplier.
3) Yes. National income will increase by $1 billion due to the balanced budget multiplier.
4) No. It was necessary to impose a smaller tax cut.

___10. Last year employers in Outer Mongolia withheld an excess of $9 billion in taxes from their employees. When this excess is refunded to individuals, what will be the effect on total income if the MPC = 2/3 and taxes remain exogenously given?
1) an increase of 6 billion
2) an increase of 9 billion
3) an increase of 18 billion
4) an increase of 27 billion

__11. If the MPC of the rich in Outer Mongolia is less than the MPC of the poor, a tax system that redistributed income to the poor might raise the MPC for the economy. What would be the effect on the value of the multiplier if the economy's MPC increases?
1) The value of the multiplier would decrease.
2) The value of the multiplier would increase.
3) The value of the multiplier would be unaffected.
4) There is not enough information given to make an assessment.

__12. Suppose that government expenditures equal $300, and taxes are exogenously determined and equal $300. Also suppose that the MPC = .75, and the actual level of aggregate demand is equal to $1300. If government expenditures were then increased to $375, by how much would taxes have to be changed so that the level of aggregate demand remains the same?
1) decreased by $75
2) increased by $75
3) decreased by $100
4) increased by $100

## ANSWER KEY

| Question | Answer |
|---|---|
| 1. | 2 |
| 2. | 3 |
| 3. | 3 |
| 4. | 1 |
| 5. | 3 |
| 6. | 2 |
| 7. | 2 |
| 8. | 1 |
| 9. | 2 |
| 10. | 3 |
| 11. | 2 |
| 12. | 4 |

# TIPS SURVEY 5.1

Name:_____________________________ Social Security No:____________________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

## Investment in the American Economy

____1. Which of the following would be considered investment in computing Gross National Product?

A The purchase of 100 shares in General Motors by an insurance company.
B The purchase of $10 million of automobile components by General Motors.
C The accumulation of automobiles by General Motors in their plants.

1) A only
2) B only
3) B and C only
4) A and C only

____2. For the economy as a whole, which of the following is correct with respect to investment expenditure?

1) It does not benefit consumers.
2) It makes possible higher levels of consumption in the future.
3) It is primarily the purchase of stocks and bonds.
4) It is part of GNP but not of NNP.

____3. Which of the following would be the most likely result of an autonomous $4 billion decrease in investment in the USA?

1) Tax increases to offset the drop in investment.
2) An increase in the cost of loans for investment.
3) A decrease in the national income of $4 billion.
4) A decrease in the national income by some multiple of the decrease in investment.

____4. An economy's capital stock must decline if

1) consumption exceeds investment.
2) net investment is zero.
3) depreciation is greater than gross investment.
4) depreciation is greater than net investment.

### Investment Expenditure and the Rate of Interest

____5. For which of the following reasons is investment spending assumed to be inversely related to the rate of interest, *cet.par*?

A Interest rates are a cost to be taken into account in making investment decisions.
B At higher rates of interest the return firms could earn on money not invested falls.
C Firms will select only those investment projects whose expected rate of return exceeds the rate of interest.

1) A only
2) B only
3) A and C only
4) B and C only

____6. "The basic theory of national income determination makes clear that fiscal policy is the main factor determining the level of aggregate demand and, consequently, the level of unemployment and the rate of inflation. All the discussion in the newspapers about changes in interest rates may be of significance to bond holders, but it is of no relevance to the important developments in the economy." Do you agree with this statement and why?

1) Agree, because the key factors determining the level of GNP are autonomous changes in aggregate demand.
2) Agree, because the interest rate is not a component of aggregate demand.
3) Disagree, because the interest rate is a reflection of how well the economy is achieving its potential.
4) Disagree, because the interest rate is an important determinant of aggregate demand.

____7. The reason why a decline in the rate of interest will, other factors unchanged,lead to an increase in investment expenditure is that the decline in the rate of interest will

1) cause creditors to want to lend more to investors.
2) increase the rate of return on investment.
3) reduce consumption expenditure.
4) increase the number of investment projects with a rate of return greater than the rate of interest.

### Other Determinants of Investment Expenditure

____8. In the simple theory of income determination investment is assumed to be "autonomous". This means that

1) the actual level of investment spending can never change in a given year.
2) investment expenditure is independent of the level of national
3) income.
3) investment is not a component of aggregate demand.
4) investment plays no role in the determination of the equilibrium national income.

____9. Which of the following does not affect the amount which firms wish to invest?
1) The amount which people are willing to save out of income.
2) Expectations about future levels of economic activity.
3) The average rate of interest in the economy.
4) The rate of technological change.

____10. A decrease in the level of investment spending would be a consequence of which of the following factors?
1) A decline in the rate of interest.
2) A decline in stock market prices.
3) A decline in business taxes.
4) A decline in the level of wages.

ANSWER KEY

1. 3
2. 2
3. 4
4. 3
5. 3
6. 4
7. 4
8. 2
9. 1
10. 2

# TIPS SURVEY 6.1

Name:______________________________ Social Security No:____________________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

## Saving and Wealth

____1. Which of the following are rational explanations why a person might hold part of his wealth in the form of money even though money does not yield any interest?

A To avoid the costs of selling securities each time he wants to purchase a good or service.

B To avoid the risk of changes in the value of securities due to interest rate changes.

1) A only
2) B only
3) both A and B
4) neither A nor B

____2. Which of the following types of people is most likely to suffer from an unexpected rise in interest rates? Persons whose assets consist of

1) demand deposits.
2) currency.
3) gold.
4) long-term bonds.

____3. Individuals will tend to move out of money and into bonds if they think that

1) the rate of interest is going to fall.
2) the rate of interest is going to rise.
3) the rate of interest is not going to change.
4) the real price of goods will fall.

## Money and Financial Intermediaries

____4. The definition of money as a medium of exchange means that

1) money and disposable income are the same thing.
2) money and total spending are the same thing.
3) money serves as a unit of account.
4) money will only be held for transactions purposes.

____5. In the final analysis, the value of money
1) depends on the cost of producing it.
2) is defined as what money will buy.
3) is determined by the worth of the gold or silver which backs it.
4) is defined as its intrinsic worth.

6. Demand deposits are money because they are
1) legal tender.
2) fiat money.
3) a medium of exchange.
4) token money.

____7. Commercial banks differ from all other private institutions in this respect: they are the only agency
1) in which the community's savings may be kept.
2) which makes loans to small business.
3) which furnishes a money medium of exchange other than paper bills or coins.
4) which will accept time deposits.

____8. If commercial banks hold demand deposits of $100,000, reserves of $30,000, and the required reserve ratio is 20 per cent, what is the maximum additional amount by which the banking system can expand the money supply?
1) $20,000
2) $30,000
3) $50,000
4) $60,000

____9. A commercial bank with no previous excess reserves receives new deposits of $5,000 and uses all the excess reserves by expanding loans by $4,500. What is the legal reserve requirement?
1) 10 per cent
2) 12 per cent
3) 15 per cent
4) 17 per cent

____10. If a member bank has legal reserve requirements of 25 per cent
1) it must have cash in its vaults plus reserves at the Fed equal to one-fourth of its loans and investments.
2) it must have money on deposit with the Fed equal to one-fourth of its loans and investments.
3) it must have money on deposit with the Fed equal to one-fourth of demand deposits.
4) it must have cash in its vaults plus reserves at the Fed equal to one-fourth of demand deposits.

____11. A decrease in legal reserve requirements will tend to
1) reduce the money supply and reduce commercial bank loans.
2) reduce the money supply and increase commercial bank loans.
3) increase the money supply and increase commercial bank loans.
4) increase the money supply and decrease commercial bank loans.

## The Demand for Money

____12. The transactions demand for money
1) will depend upon the level of income and be independent of the interest rate.
2) other things equal, will depend on the level of income.
3) represents the asset demand for money.
4) is the same as the precautionary (or "liquidity") demand.

____13. Given the demand for loanable funds, the higher will be the rate of interest
1) the more new money commercial banks are creating.
2) the less the economy needs money for transaction purposes.
3) the greater the number of savers who expect the rate of interest to rise in the future.
4) the fewer the number of savers who find it necessary to take precautions against unfavorable financial contingencies in the future.

____14. Which of the following explains why a decrease in the quantity of money will result in a rise in the rate of interest?
A The quantity of money demanded decreases as the rate of interest increases.
B The demand curve for money slopes downward from left to right.
C The quantity of securities demanded increases as the rate of interest increases.

1) A only
2) B only
3) A and B only
4) A,B and C

ANSWER KEY

1. 3
2. 4
3. 1
4. 3
5. 2
6. 3
7. 3
8. 3
9. 1
10. 4
11. 3
12. 2
13. 3
14. 4

# TIPS SURVEY 7.1

Name:______________________ Social Security No:____________________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

## General Equilibrium of Goods and Financial Markets

____1. According to modern theory, the effect of changes in the quantity of money
1. is confined almost exclusively to changes in the price level.
2. does not change the price level in the short run.
3. tends to change aggregate demand by causing changes in the rate of interest.
4. is directly on the level of unemployment.

____2. If the level of spending increases, with the quantity of money held constant, then:
1) the velocity of circulation of money must have increased.
2) the amount of real national output must have increased.
3) both the velocity of money circulation and the amount of real national output must have increased.
4) both the velocity of money circulation and the amount of real national output must have decreased.

____3. The C + I + G schedule would tend to be shifted up by
1) an increase in taxes
2) an increase in interest rates.
3) open-market sales by the central bank.
4) none of these.

____4. A growing money supply increases money GNP and prices by
1) funding the government's deficit spending.
2) shifting the C + I + G schedule upward.
3) shifting the C + I + G schedule rightward.
4) funding the inflationary gap.

____5. Which of the following is a correct, likely sequence?
1) M up, i up, I up, GNP up.
2) M up, i up, I down, GNP down.
3) M up, i down, I up, GNP up.
4) M up, i down, I down, GNP down.

____6. During a period of stagnation, if Congress legislated a successful tax cut while the money supply is held constant, the rise in GNP would be
1) the result of an upward shift in the C + I + G schedule superimposed on an unchanged velocity of circulation of money.
2) the result of an increased velocity of circulation of money superimposed on an unchanged C + I + G schedule.
3) the result of an increased velocity of circulation of money as a result of an upward shift in the C + I + G schedule.
4) a contradiction in terms, since without increased money to finance the GNP, it could not rise.

## Monetary Policy

____7. Which of the following is a method available to the Federal Reserve System for pursuing expansionary monetary policy?
1) Selling bonds on the open market.
2) Increasing the legal reserve requirements of member banks.
3) Raising the discount rate.
4) Buying bonds on the open market.

____8. Open-market purchases of government bonds by the Fed will have the tendency to
1) increase interest rates, the money supply, and national income.
2) increase interest rates and the money supply, but decrease national income.
3) increase interest rates, but decrease the money supply and national income.
4) decrease interest rates, but increase the money supply and national income.

____9. Raising the discount rate, if effective, tends to
1) expand the money supply and lower interest rates.
2) expand the money supply and raise interest rates.
3) contract the money supply and raise interest rates.
4) contract the money supply and lower interest rates.

____10. The objective of the Fed's attempt to increase the money supply may be much more difficult to accomplish if
1) interest rates are already very low.
2) interest rates are already very high.
3) money is already very scarce.
4) investment changes quickly in the opposite direction with any change in interest rates.

____11. In 1931, the United States economy suffered from a very high unemployment rate. Interest rates were at an all-time low, prices were falling, and gold reserves were declining. Which, if any, of the following policies would have been appropriate to reduce unemployment and why?
A Decreasing the money supply because this would cause prices to fall and thereby aggregate demand to increase.
B Increasing interest rates because this would stimulate saving and thereby increase investment and aggregate demand.
C Increasing income taxes because this would permit an increase in social security payments and thereby increase consumption and aggregate demand. (Assume all consumers spent 90 percent of their incomes.

1) A only
2) B and C only
3) C only
4) Neither A nor B nor C

ANSWER KEY

| | |
|---|---|
| 1. | 3 |
| 2. | 1 |
| 3. | 4 |
| 4. | 2 |
| 5. | 3 |
| 6. | 3 |
| 7. | 4 |
| 8. | 4 |
| 9. | 3 |
| 10. | 1 |
| 11. | 4 |

# TIPS SURVEY 8.1

Name:______________________________ Social Security No:_____________________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

## The Labor Market

____1. Which of the following explains why considerable unemployment can exist in a market economy?
   1) At full employment, national income is not always sufficient to purchase all output produced.
   2) Many product and factor prices respond very slowly when supply exceeds demand.
   3) The rate of productivity increase is not always great enough to permit sufficient growth of actual output.
   4) The growth of productive capacity outstrips the growth of consumers' private wants.

____2. Real wages would decline if the
   1) prices of goods and services rose more rapidly than money wage rates.
   2) prices of goods and services rose less rapidly than money wage rates.
   3) prices of goods and services and wage rates both rose.
   4) prices of goods and services and wage rates both fell.

____3. Labor-market adjustments do not eliminate bottleneck problems when there is less than full employment in the economy. Which of the following is not one of the reasons for these labor-market imbalances.
   1) Unemployed workers often lack the skills or training needed for a new occupation.
   2) The demand for workers in the markets in which there are labor shortages is inadequate.
   3) There are artificial restrictions which prevent unemployed workers from filling the job openings.
   4) Unemployed workers do not know of the shortages of workers in other labor markets in the economy.

____4. Suppose the overall rate of increase in the productivity of labor in the economy is 4%. If the productivity of labor in a particular industry has increased at a rate of only 3% the wage-price guideposts would allow this industry
1) to increase both the wage rate and the price of its product by 3%.
2) to increase the wage rate by 3% and would allow no increase in price.
3) to increase the wage rate by 4% and would allow no increase in price.
4) to increase the wage rate by 4% and to increase price by about 1%.

____5. If inflation during periods of less than full employment is to be explained by the cost-push theory, it must be assumed that:
1) only unions possess considerable market power.
2) only employers possess considerable market power.
3) both unions and employers possess considerable market power.
4) neither unions nor employers possess considerable market power.

____6. Which of the following is not one of the manpower policies that might reduce premature inflation?
1) Application of antimonopoly laws to labor unions.
2) Removal of racial discrimination as an obstacle to employment.
3) Improvement of the flow of job information between workers without jobs and employers with unfilled positions.
4) Expansion of job training programs.

## The Phillips Curve

____7. The Phillips Curve
1) shows the inverse relation between the rate of increase in the price level and the unemployment rate.
2) makes it possible for the economy to achieve full employment and stable prices.
3) indicates that prices do not rise until full employment has been achieved.
4) slopes upward from left to right.

____8. The public policy dilemma illustrated by a Phillips Curve is the mutual inconsistency of
1) more employment and price stability.
2) a higher unemployment rate and price stability.
3) inflation and more employment.
4) inflation and a lower unemployment rate.

16D

____9. Which of the following is true about the relationship between the long-run and the short-run Phillips curves?
1) The short-run curve is more vertical than the long-run curve.
2) The long-run curve is more vertical than the short-run curve.
3) The short-run curve has a negative slope while the long-run curve has a positive slope.
4) The short-run curve has a positive slope while the long-run curve has a negative slope.

____10. The following 3 events recently took place in an economy:
i the level of total spending rose by 12%
ii trade unions won general wage increases of 10%
iii labor productivity increased by 10%
Using Phillips curve analysis, what should happen to the level of inflation and unemployment?
1) The inflation rate should rise and the unemployment rate should fall.
2) The inflation rate should rise, but the effect on unemployment will be indeterminate.
3) The unemployment rate should fall, but the effect on inflation will be indeterminate.
4) The effects on both inflation and unemployment will be indeterminate.

____11. If the Phillips Curve cannot be moved to the left by the employment of market or wage-price policies it will be necessary for the economy
A to suffer from continuing inflation.
B to have less than full employment
C to employ a stop-and-go stabilization policy.

1) A only
2) B only
3) Either A or B
4) Neither A, nor B nor C

ANSWER KEY

1. 2
2. 1
3. 2
4. 4
5. 3
5. 1
6. 1
7. 1
8. 1
9. 1
10. 4
11. 3

## TIPS SURVEY 9.1

Name:______________________________ Social Security No:________________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left. After completing the survey, transfer these numbers to the data processing sheet, and complete the indicated identification on that sheet.

### The Balance of Payments

____ 1. One year, under a system of flexible exchange rates, one pound sterling was exchanging for 2.4 United States dollars. The following year the rate of exchange was one pound for 2.8 dollars. Which of the following is likely to have caused this change?
1) An increase in British interest rates
2) An increase in United States interest rates
3) A rise in the British inflation rate
4) A rise in the United States unemployment rate

____ 2. Is the analysis in the following statement correct or incorrect, and why?
"If we had a fixed exchange rate, our imports of goods and services would exceed our exports of goods and services by $4 billion. At the same time, capital investment abroad by United States residents would exceed foreign capital investment in the United States by $6 billion. Consequently, there would be a net inflow of gold and foreign exchange in the absence of any other foreign transactions."
1) Correct, because the inflow from foreign capital investment would exceed the outflow from the balance of trade.
2) Incorrect, because whenever imports of goods and services exceed exports of goods and services, a country will have a balance of payments problem.
3) Correct, because the net foreign capital investment would increase US assets abroad by $6 billion, which would exceed the deficit in the balance of trade.
4) Incorrect, because the deficit in the balance of trade plus the foreign capital investment would cause an outflow of gold and foreign exchange.

____ 3. When exchange rates are stable and a nation at full employment has a payments surplus, the result in that nation will be
1) a declining price level.
2) falling money income.
3) inflation.
4 rising real income

____ 4. Which one of the following would not tend to reduce a nation's balance of payments deficit?
1) an increase in the productivity of the nation's resources
2) an increase in the nation's price level
3) an increase in the flow of private capital into the nation
4) an increase in the nation's exports

____ 5. Which of the following would be one of the results associated with the use of freely fluctuating foreign exchange rates to correct a nation's balance of payments surplus?
   1) the nation's terms of trade with other nations would be worsened
   2) importers in the nation who had made contracts for the future delivery of goods would find that they had to pay a higher price than expected for the goods
   3) if the nation were at full employment the decrease in exports and the increase in imports would be inflationary
   4) exporters in the nation would find their sales abroad had decreased

## The Income-Expenditure Model with Foreign Trade

____ 6. A 'closed economy' is one in which
   1) exports and imports are equal.
   2) exports and imports are fixed.
   3) exports and imports do not exist.
   4) exports and imports are both exogenous.

____ 7. Which of the following describes the marginal propensity to import?
   1) The increase in net exports which accompanies an increase in domestic national income.
   2) The fraction of change in domestic national income which is spent on foreign produced goods and services.
   3) The percentage change in domestic national income divided by the accompanying percentage change in imports.
   4) The slope of the aggregate demand schedule for an open economy.

____ 8. The importance of the international sector for the flow of income in the economy is that
   1) an excess of exports over imports results in a leakage from the circular flow.
   2) unless exports are greater than imports the national income will continuously decline.
   3) the excess of exports over imports determines the rate of growth of the economy.
   4) imports are leakages from and exports injections to the circular flow.

QUESTIONS 9 and 10 ARE BASED ON THE DATA CONTAINED IN THE TABLE BELOW

| NNP | C + I + G | Net Exports |
|---|---|---|
| $ 900 | $ 913 | $ 7 |
| 920 | 929 | 6 |
| 940 | 945 | 5 |
| 960 | 961 | 4 |
| 980 | 977 | 3 |
| 1,000 | 1,009 | 1 |

____ 9. If exports in this economy are constant, its marginal propensity to import must be
1) 0.04.
2) 0.05.
3) 0.06.
4) 0.07.

____10. The equilibrium NNP in this economy is
1) $960.
2) $980.
3) $1,000.
4) $1,020.

International Monetary Arrangements

____11. Which one of the following was not characteristic of the International Monetary Fund in the Bretton Woods system?
1) made short-term loans to member nations with balance of payments deficits
2) tried to maintain relatively stable foreign exchange rates
3) attempted to maintain foreign exchange convertibility
4) extended long-term loans to underdeveloped nations for the purpose of increasing their productive capacities

____12. The Smithsonian Agreement
1) increased the dollar price of gold to $42.22 per ounce.
2) devalued the French franc and the West German mark.
3) floated the dollar.
4) increased the limits within which exchange rates were allowed to fluctuate.

____13. Which of the following is not true of SDRs?
1) They serve as international reserves.
2) They have no gold backing.
3) They are issued by the United Nations.
4) They are acceptable in payment of international debts by the members of the IMF.

ANSWER KEY

| Question | Answer |
|---|---|
| 1. | 1 |
| 2. | 4 |
| 3. | 3 |
| 4. | 2 |
| 5. | 4 |
| 6. | 3 |
| 7. | 2 |
| 8. | 4 |
| 9. | 2 |
| 10. | 2 |
| 11. | 4 |
| 12. | 4 |
| 13. | 3 |

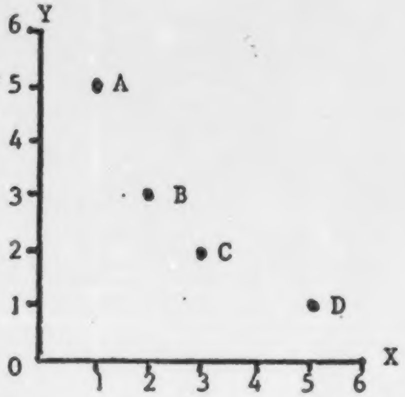
# SOME BASIC TOOLS AND TERMINOLOGY IN THE STUDY OF ECONOMICS

Name:________________________________________ Student Number:______________

Select the best answer from the alternatives given. Place the number of the correct answer in the blank at the left.

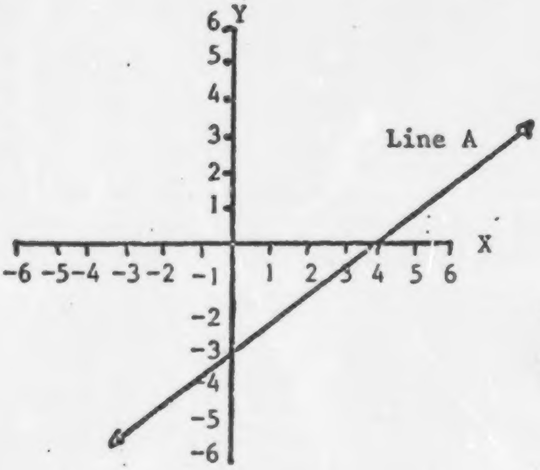
## Reading a Graph and Some Basic Terminology

____1. The point (1,5) corresponds to what letter?



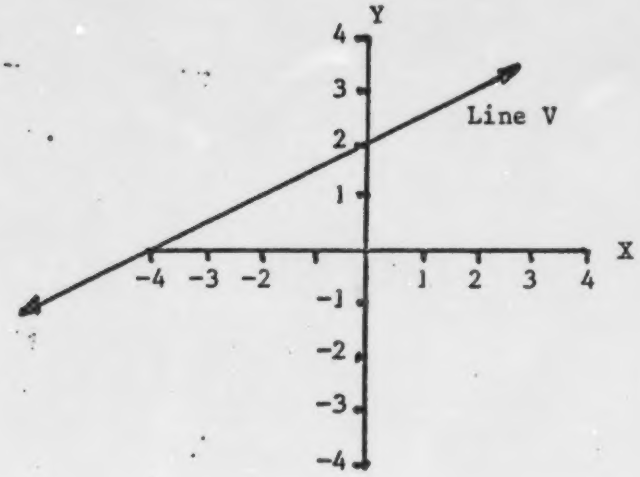
1) A
2) B
3) C
4) D

_____2. Identify the coordinates of two points on Line A.



1) (4,0); (-3,0)
2) (4,0); (0,-3)
3) (-3,0); (0,4)
4) (0,4); (0,-3)

Questions, 3, 4 and 5 are based on the graph below.



_____3. Identify the x-intercept of Line V.

1) 0
2) -4
3) 2
4) 4

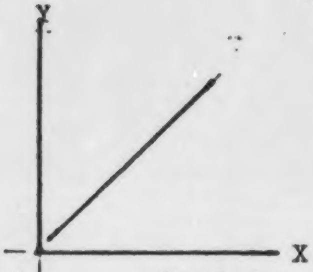
_____4. Identify the y-intercept of Line V.

1) 2
2) -4
3) 0
4) -2

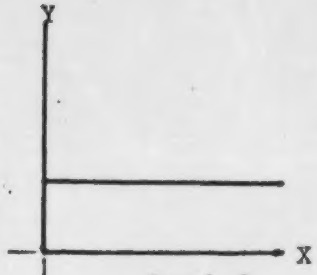
_____5. Calculate the slope of Line V.

1) 1/2
2) -1/2
3) 2/1
4) -2/1

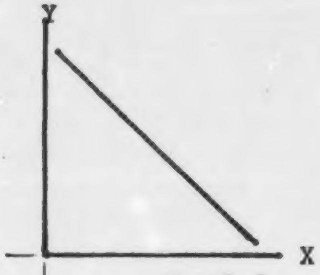
Questions 6, 7 and 8 are based on the graphs below.



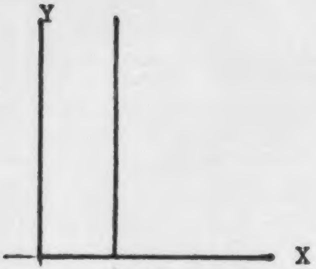
Graph 1



Graph 2



Graph 3



Graph 4

_____6. The amount of y does not depend upon the amount of x in Graph:

1) 1
2) 2
3) 3
4) 4

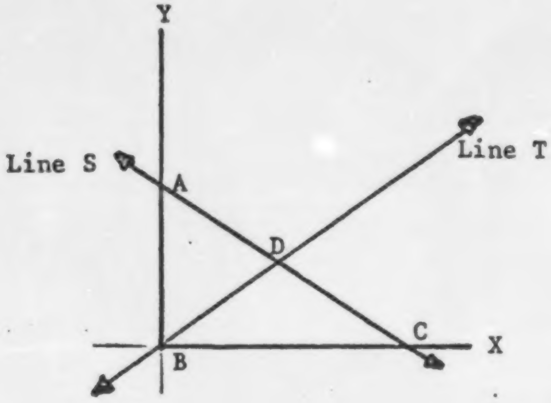
_____7. The amount of y is directly or positively related to the amount of x in Graph:

1) 1
2) 2
3) 3
4) 4

_____8. The amount of y is inversely or negatively related to the amount of x in Graph:

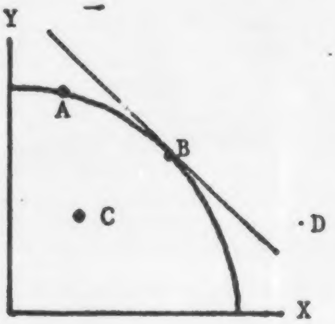
1) 1
2) 2
3) 3
4) 4

_____9. What is the point of intersection of Line S and Line T?


Y
X
Line S
Line T
A
B
C
D

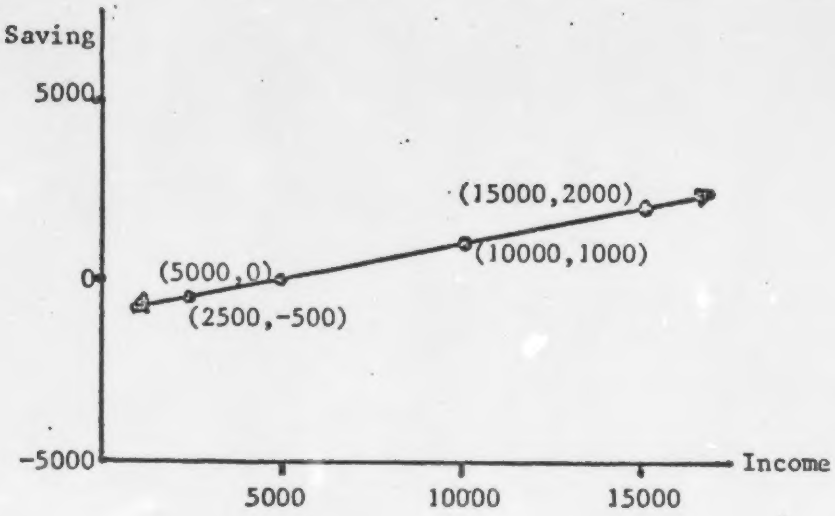
1) A
2) B
3) C
4) D

_____10. Which point corresponds to a point of tangency?



1) A
2) B
3) C
4) D

Questions 11-15 are based on the graph below.



_____11. When income increases, saving:

1) decreases
2) remains the same
3) increases
4) saving and income are not related

_____12. When income decreases, saving:

1) decreases
2) remains the same
3) increases
4) saving and income are not related

_____13. The relation between income and saving is called:

1) inverse or negative
2) direct or positive
3) parallel to one axis
4) direct or negative

_____14. If income were $20,000, saving would be:

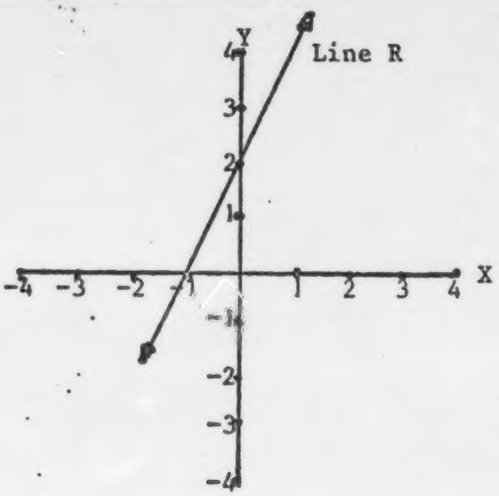
1) $1250
2) $1500
3) $2500
4) $3000

_____15. The slope of the line relating saving and income is:

1) 5/1
2) 1/5
3) -5/1
4) -1/5

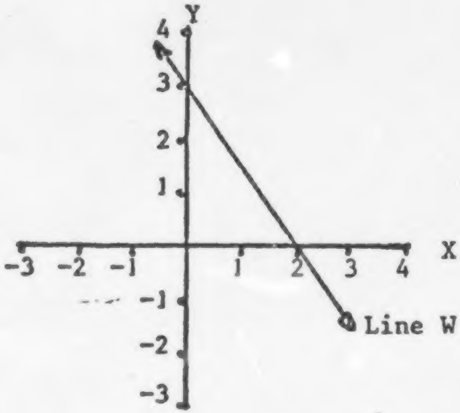
## Graphs and the Equation for a Line

_____16. Identify the equation of Line R.



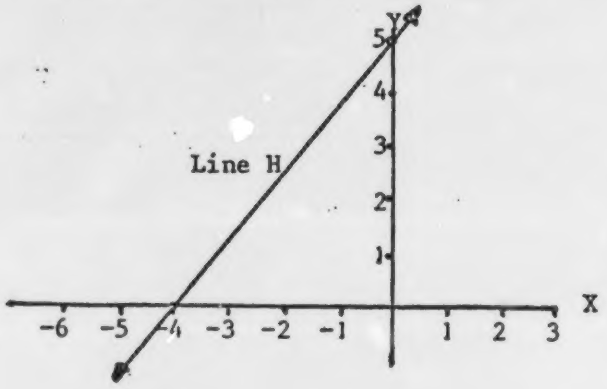
1) $y = 2 + x$
2) $y = 1 + (1/2)x$
3) $y = 2 + 2x$
4) $y = -1 + (1/2)x$

_____17. Which of the following is the equation of Line W?



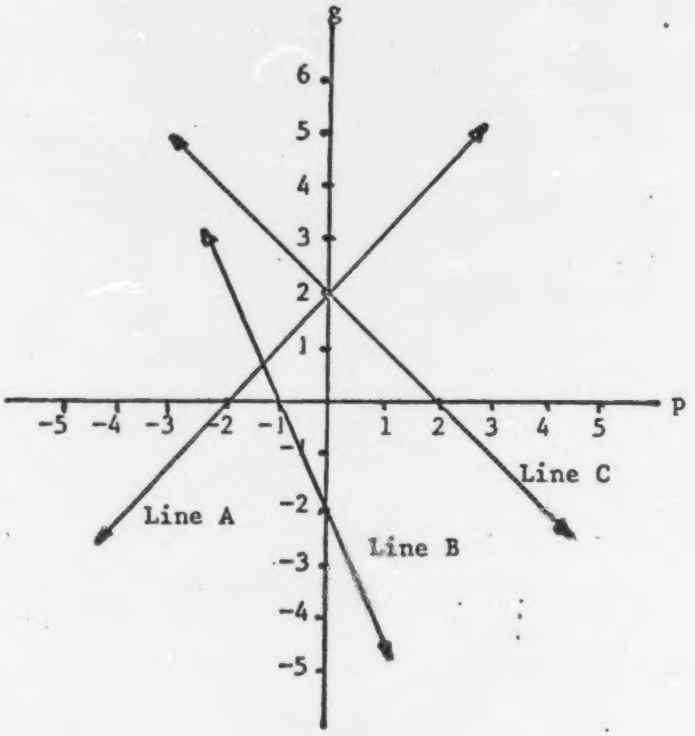
1) $y = 6 - 3x$
2) $y = -3 - (3/2)x$
3) $y = (4/3) - (2/3)x$
4) $y = 3 - (3/2)x$

_____18. Which of the following is the equation of Line H?



1) y = (5/4)x + 5
2) y = (4/5)x - 4
3) y = 5 + (4/5)x
4) y = 4 + (5/4)x

_____19. Which of the following lines is a graph of the equation g = 2 - p?



1) Line A
2) Line B
3) Line C
4) None of the above

Questions 20-22 are based on the linear equation: y = 3 - (3/5)x

_____20. The numerical value of the y-intercept is:

1) 0
2) 5
3) 3
4) 3/5

_____21. The numerical value of the slope is:

1) 5/3
2) -5/3
3) 3/5
4) -3/5

_____22. The numerical value of the x-intercept is:

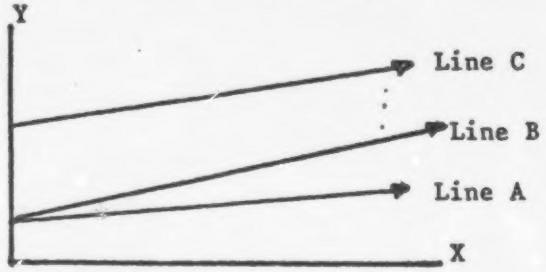
1) 0
2) 5
3) 3
4) 3/5

## Basic Algebra of Intersecting and Non-Intersecting Lines

_____23. Solve for "m" in the linear equation 9 + (4/7)m = 12

1) 3
2) 5
3) 12/7
4) 21/4

Questions 24 and 25 are based on the graph below.



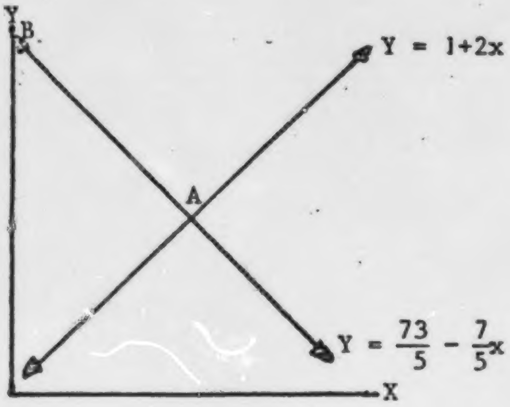
_____24. A movement from Line A to Line B involves what changes?

1) a change in the slope only
2) a change in the intercept only
3) a change in both the slope and the intercept
4) neither a change in the slope nor the intercept

_____25. A movement from Line A to Line C involves what changes?

1) a change in the slope only
2) a change in the intercept only
3) a change in both the slope and the intercept
4) neither a change in the slope nor the intercept

Questions 26 and 27 are based on the graph below.



_____26. The solution of the two intersecting lines is:

1) y = 1 + 2x
2) y = 15 - 5x
3) Point A
4) Point B

_____27. What are the values of x and y at Point A?

1) x = 5; y = 11
2) x = 16/3; y = 35/3
3) x = 16/7; y = 39/7
4) x = 2; y = 5

_____28. Solve the following equations simultaneously for x and y:
y = -37 + 5x; y = 15 - (3/2)x

1) x = 141/17; y = 76/17
2) x = 94/13; y = -11/13
3) x = 8; y = 3
4) x = 3; y = 8

## Useful Notation Definitions

$=$ equals
$\neq$ not equal to
$\equiv$ is defined as being equal to; e.g. $\pi \equiv TR - TC$
profit is defined as being equal to total revenue - total cost

$>$ greater than
$\geq$ greater than or equal to
$<$ less than
$\leq$ less than or equal to
$f =$ is a function of i.e. depends upon; e.g. $c = f(y)$
consumption is a function of, or depends upon, income.

$\Sigma$ (sigma for sum)

$$x_1 + x_2 + x_3 = \sum_{j=1}^{3} xj$$

$$x_0 + x_1 + \ldots + x_n = \sum_{k=0}^{n} x_k$$

$\Delta$ (delta, a small change in)
$\Delta P$ - a small change in the price

$\frac{\Delta q}{q} \Big/ \frac{\Delta p}{P}$ = ratio of relative change in quantity demanded to relative change in price

= price elasticity of demand

$\frac{\Delta q}{q} \Big/ \frac{\Delta y}{y}$ = income elasticity of demand

$P_x$ = price of good x

$Y_t$ = income in year t (this year)

$Y_{t-1}$ = income in year t-1 (last year)

$Y_{t+1}$ = income in year t+1 (next year)

A bar above a variable means that the value of that variable is assumed to be given: e.g. $D_{CL} = f(P_{CL}, \bar{P}_S, \bar{P}_H, \bar{Y})$

Your demand for Carlsberg Lager ($D_{CL}$) depends upon the price of Carlsberg Lager and also the price of Skol (assumed given), the price of McEwan's (assumed given) and your income (assumed given).

$D_{CL}$ is the dependent variable in the above i.e. it depends upon other variables which are independent variables.

Variables whose magnitudes are determined by a model are endogenous variables. Those variables whose magnitudes are not determined by the model are exogenous variables.

STUDENT INFORMATION QUESTIONNAIRE

We would like you to provide the following information for the purposes of enabling us to plan this course more clearly to your needs. Although you may have provided the information already, it is more convenient for us to ask for it now rather than to search through student records. Thank you for your help.

---

Last name: First name:

---

| | |
|---|---|
| Sex: If male circle 1, if female circle 2 | 1<br>2 |

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Date of Birth: Year 19 ☐☐ Month ☐☐

---

It is possible that the reasons for taking economics are related to students' attitudes toward the subject and hence have implications for the methods of teaching which best suit specific students. Answer the question below which refers to your student type: A or B or C.

| | | |
|---|---|---|
| A. You are studying another subject for which this is a required course. Circle the number which applies. | Yes...<br>No.... | 1<br>2 |

B. You are studying for an economics degree for which this is the first course. Circle the number corresponding to your reason.

| | |
|---|---|
| You studied economics at school, and this stimulated your interest..... | 1 |
| You did not study economics at school, but you heard about it from your teacher or other students.................................... | 2 |
| The entry requirements were minimal.................................... | 3 |
| You heard that it is a relatively easy subject in which to obtain a degree.................................... | 4 |
| It is a subject you wish to know about because of your political ideals.................................... | 5 |
| You felt it would be the subject with something useful to say about world issues and problems.................................... | 6 |
| It is a mystery to you why you are studying economics.................. | 7 |
| Other - please be brief ________________________ | 8 |

C. You are studying for a degree in a subject in which you are required to take one or more elective outside subjects. Circle the number.

| | |
|---|---|
| You heard that economics was an easy option.............................. | 1 |
| It seemed a good complement to your other studies......................... | 2 |
| It was the only real alternative open to you.............................. | 3 |
| It was the least unattractive of all the possibilities................ | 4 |
| You made a more or less random selection.................................. | 5 |
| You wished to know more about economics because of your political ideals.................................... | 6 |
| You felt that economics would equip you to analyse real world problems and issues.................................... | 7 |

Psychological Inventory

## Test Administration Instructions

1 Distribute to the students the Psychological Inventory booklets and the corresponding answer sheets.

2 Ask the students to complete the information section of the answer sheet and read the instructions on the front of the booklet.

3 Inform the students that this is merely an attempt to measure positive character traits; it is NOT a test. The questions should be answered honestly without deliberation. All information will be kept strictly confidential.

4 The Inventory will require approximately 15 minutes for completion.

5 Collect the Inventory booklets.

6 Ask the students to check that their name and identification number are legible on the answer sheet.

7 Please collect and return the answer sheets together with the booklets.

NAME: ______________________________ AGE: ________ SEX: ________

(please print)

INSTITUTION: ______________________________________________

Directions: Be sure to fill in your name and other information requested. Then answer TRUE (T) or FALSE (F) for each statement by putting an X on the appropriate circle as in the example shown at the right.

| T | F |
|---|---|
| ⊗ | ○ |

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|  | T | F |  | T | F |  | T | F |  | T | F |  | T | F |  | T | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | ○ | ○ | 22. | ○ | ○ | 43. | ○ | ○ | 64. | ○ | ○ | 85. | ○ | ○ | 106. | ○ | ○ |
| 2. | ○ | ○ | 23. | ○ | ○ | 44. | ○ | ○ | 65. | ○ | ○ | 86. | ○ | ○ | 107. | ○ | ○ |
| 3. | ○ | ○ | 24. | ○ | ○ | 45. | ○ | ○ | 66. | ○ | ○ | 87. | ○ | ○ | 108. | ○ | ○ |
| 4. | ○ | ○ | 25. | ○ | ○ | 46. | ○ | ○ | 67. | ○ | ○ | 88. | ○ | ○ | 109. | ○ | ○ |
| 5. | ○ | ○ | 26. | ○ | ○ | 47. | ○ | ○ | 68. | ○ | ○ | 89. | ○ | ○ | 110. | ○ | ○ |
| 6. | ○ | ○ | 27. | ○ | ○ | 48. | ○ | ○ | 69. | ○ | ○ | 90. | ○ | ○ | 111. | ○ | ○ |
| 7. | ○ | ○ | 28. | ○ | ○ | 49. | ○ | ○ | 70. | ○ | ○ | 91. | ○ | ○ | 112. | ○ | ○ |
| 8. | ○ | ○ | 29. | ○ | ○ | 50. | ○ | ○ | 71. | ○ | ○ | 92. | ○ | ○ | 113. | ○ | ○ |
| 9. | ○ | ○ | 30. | ○ | ○ | 51. | ○ | ○ | 72. | ○ | ○ | 93. | ○ | ○ | 114. | ○ | ○ |
| 0. | ○ | ○ | 31. | ○ | ○ | 52. | ○ | ○ | 73. | ○ | ○ | 94. | ○ | ○ | 115. | ○ | ○ |
| 1. | ○ | ○ | 32. | ○ | ○ | 53. | ○ | ○ | 74. | ○ | ○ | 95. | ○ | ○ | 116. | ○ | ○ |
| 2. | ○ | ○ | 33. | ○ | ○ | 54. | ○ | ○ | 75. | ○ | ○ | 96. | ○ | ○ | 117. | ○ | ○ |
| 3. | ○ | ○ | 34. | ○ | ○ | 55. | ○ | ○ | 76. | ○ | ○ | 97. | ○ | ○ | 118. | ○ | ○ |
| 4. | ○ | ○ | 35. | ○ | ○ | 56. | ○ | ○ | 77. | ○ | ○ | 98. | ○ | ○ | 119. | ○ | ○ |
| 15. | ○ | ○ | 36. | ○ | ○ | 57. | ○ | ○ | 78. | ○ | ○ | 99. | ○ | ○ | 120. | ○ | ○ |
| 16. | ○ | ○ | 37. | ○ | ○ | 58. | ○ | ○ | 79. | ○ | ○ | 100. | ○ | ○ | 121. | ○ | ○ |
| 17. | ○ | ○ | 38. | ○ | ○ | 59. | ○ | ○ | 80. | ○ | ○ | 101. | ○ | ○ | 122. | ○ | ○ |
| 18, | ○ | ○ | 39. | ○ | ○ | 60. | ○ | ○ | 81. | ○ | ○ | 102. | ○ | ○ | 123. | ○ | ○ |
| 19. | ○ | ○ | 40. | ○ | ○ | 61. | ○ | ○ | 82. | ○ | ○ | 103. | ○ | ○ | 124. | ○ | ○ |
| 20. | ○ | ○ | 41. | ○ | ○ | 62. | ○ | ○ | 83. | ○ | ○ | 104. | ○ | ○ | 125. | ○ | ○ |
| 21. | ○ | ○ | 42. | ○ | ○ | 63. | ○ | ○ | 84. | ○ | ○ | 105. | ○ | ○ | 126. | ○ | ○ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 127. | ○ | ○ |

1 The only interesting part of the newspaper is the "comic strips."

2 I looked up to my father as an ideal man.

3 Our thinking would be a lot better off if we would just forget about words like "probably", "approximately", and "perhaps."

4 I have a very strong desire to be a success in the world.

5 I liked "Alice in Wonderland" by Lewis Carroll.

6 I usually go to the cinema more than once a week.

7 I have had very peculiar and strange experiences.

8 I am often said to be hotheaded.

9 I gossip a little at times.

10 When I was going to school I played truant quite often.

11 I have very few fears compared to my friends.

12 For most questions there is just one right answer, once a person is able to get all the facts.

13 I think I would like the work of a school teacher.

14 When someone does me a wrong I feel I should pay the person back if I can, just for the principle of the thing.

15 I seem to be about as capable and bright as most others around me.

16 I usually take an active part in the entertainment at parties.

17 The trouble with many people is that they don't take things seriously enough.

18 It is always a good thing to be frank.

19 A thunderstorm terrifies me.

20 I often feel as if the world were just passing me by.

21 People often expect too much of me.

22 When in a group of people I have trouble thinking of the right things to talk about.

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23 It is annoying to listen to a lecturer who can not seem to make up his or her mind as to what he or she really believes.

24 I don't blame anyone for trying to grab all he or she can get in this world.

25 Planning one's activities in advance is very likely to take most of the fun out of life.

26 I was a slow learner in school.

27 I like poetry.

28 People who seem unsure and uncertain about things make me feel uncomfortable.

29 There is something wrong with a person who can't take orders without getting angry or resentful.

30 Sometimes without any reason or even when things are going wrong I feel excitedly happy, "on top of the world."

31 I wake up fresh and rested most mornings.

32 Most people make friends because friends are likely to be useful to them.

33 It is all right to get around the law if you don't actually break it.

34 Parents are much too easy on their children nowadays.

35 I have a tendency to give up easily when I meet difficult problems.

36 I certainly feel useless at times.

37 I read at least ten books a year.

38 I have the wanderlust and am never happy unless I am roaming or travelling about.

39 I am sometimes cross and grouchy without any good reason.

40 My parents have often disapproved of my friends.

41 Teachers often expect too much work from the students.

42 My way of doing things is apt to be misunderstood by others.

43 I have had blank spells in which my activities were interrupted and I have not known what was going on around me.

44 I have had more than my share of things to worry about.

45 I am quite often not in on the gossip and talk of the group to which I belong.

46 I like to keep people guessing what I am going to do next.

47 I think I would like to fight in a boxing match sometime.

48 In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well.

49 If given the chance I would make a good leader of people.

50 I like to plan a schedule for study at home and then follow it.

51 I enjoy a race or game better when I bet on it.

52 I have often found people jealous of my good ideas, just because they had not thought of them first.

53 In school I was sometimes sent to the headmaster for misbehaving.

54 People pretend to care more about one another than they really do.

55 I like to read about history.

56 I am so touchy on some subjects that I can not talk about them.

57 The future is too uncertain for a person to make serious plans.

58 I like to talk before groups of people.

59 The person who provides temptation by leaving valuable property unprotected is about as much to blame for its theft as the one who steals it.

60 I am often bothered by useless thoughts which keep running through my mind.

61 I like to plan out my activities in advance.

62 I must admit I find it very hard to work under strict rules and regulations.

63 I like large, noisy parties.

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64 I sometimes feel that I am a burden to others.

65 Only a fool would try to change our British way of life.

66 In school I found it very hard to talk before the class.

67 I always try to do at least a little better than what is expected of me.

68 Lawbreakers are almost always caught and punished.

69 I would be very unhappy if I were not successful at something I had seriously started to do.

70 I dread the thought of an earthquake.

71 I like science.

72 I often lose my temper.

73 My parents were always very strict and stern with me.

74 I am bothered by people outside, on buses, in shops, etc. watching me.

75 I often get disgusted with myself.

76 Society owes a lot more to the businessman and the manufacturer than it does to the artist and the professor.

77 I like to read about science.

78 I have never been in trouble because of my sex behaviour.

79 I think I would like to belong to a motor cycling club.

80 I used to like it very much when one of my papers was read to the class in school.

81 I feel that I have often been punished without cause.

82 I often get feelings like crawling, burning, tingling, or "going to sleep" in different parts of my body.

83 I don't seem to care what happens to me.

84 I often wish people would be more definite about things.

85 It is annoying to listen to a lecturer who cannot seem to make up his or her mind as to what he or she really believes.

86 I find that a well-ordered mode of life with regular hours is congenial to my temperament.

87 It is hard for me to sympathise with someone who is always doubting and unsure about things.

88 I often start things I never finish.

89 I work under a great deal of tension.

90 Our thinking would be a lot better off if we would just forget about words like "probably", "approximately", and "perhaps."

91 I never make judgements about people until I am sure of the facts.

92 I must admit I have no great desire to learn new things.

93 A strong person will be able to make up his or her mind even on the most difficult questions.

94 I seldom worry about my health.

95 For most questions there is just one right answer once a person is able to get all the facts.

96 I like to have a place for everything and everything in its place.

97 I have never seen a vision.

98 I don't like to work on a problem unless there is the possibility of coming out with a clear-cut and unambiguous answer.

99 It bothers me when something unexpected interrupts my daily routine.

100 The future seems hopeless to me.

101 I have had no difficulty starting or holding my urine.

102 Most of the arguments or quarrels I get into are over matters of principle.

103 I am known as a hard and steady worker.

104 Success is a matter of will power.

105 I don't like things to be uncertain and unpredictable.

106 I get pretty discouraged with the law when a clever lawyer gets a criminal free.

107 I am quite a fast reader.

108 I daydream very little.

109 Once I have my mind made up I seldom change it.

110 At times I have been so entertained by the cleverness of a crook that I have hoped he would get away with it.

111 I think I am more strict about right and wrong than most people.

112 I have had attacks in which I could not control my movements or speech, but in which I knew what was going on around me.

113 I am in favour of a very strict enforcement of all laws, regardless of the consequences.

114 I have had no difficulty in starting or holding my bowel movement.

115 I always see to it that my work is carefully planned and organised.

116 I do not read every editorial in the newspaper every day.

117 Any job is all right with me, so long as it pays well.

118 It often seems that my life has no meaning.

119 I feel like giving up quickly when things go wrong.

120 If people had not had it in for me I would have been much more successful.

121 I am not afraid of picking up a disease or germs from doorknobs.

122 It is more important that a father be kind than that he be successful.

123 My skin seems to be unusual sensitive to touch.

124 I have often been frightened in the middle of the night.

125 The trouble with most people is that they don't take things seriously enough.

126 I become irritated by writers who go out of their way to use strange and unusual words.

127 I set a high standard for myself and I feel others should do the same.

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## Pre-Test of Macroeconomics Comprehension

1. Distribute to the students the answer sheets.

2 Ask the students to complete the information section of the answer sheet.

3 Distribute to the students the Pre-Test booklets requesting that they do not open them until told to do so. Then ask that they read the instructions on the first page. Explain that they have 25 minutes to complete the Test. Tell them to turn the page and begin.

4 Collect the test booklets.

5 Ask the students to check that their name and identification number are legible on the answer sheet.

6 Please collect and return the answer sheets together with the booklets.

Answer Sheet for Pre-Test of Macroeconomics Comprehension

---

**First name:** **Last name:**

---

Please circle the letter which you think corresponds to the correct answer. Erase completely any answer you wish to change.

| | | | | |
|---|---|---|---|---|
| Q. 1 a b c d | Q.11 a b c d | Q.21 a b c d | Q.31 a b c d | Q.41 a b c d |
| Q. 2 a b c d | Q.12 a b c d | Q.22 a b c d | Q.32 a b c d | Q.42 a b c d |
| Q. 3 a b c d | Q.13 a b c d | Q.23 a b c d | Q.33 a b c d | Q.43 a b c d |
| Q. 4 a b c d | Q.14 a b c d | Q.24 a b c d | Q.34 a b c d | Q.44 a b c d |
| Q. 5 a b c d | Q.15 a b c d | Q.25 a b c d | Q.35 a b c d | Q.45 a b c d |
| Q. 6 a b c d | Q.16 a b c d | Q.26 a b c d | Q.36 a b c d | Q.46 a b c d |
| Q. 7 a b c d | Q.17 a b c d | Q.27 a b c d | Q.37 a b c d | Q.47 a b c d |
| Q. 8 a b c d | Q.18 a b c d | Q.28 a b c d | Q.38 a b c d | Q.48 a b c d |
| Q. 9 a b c d | Q.19 a b c d | Q.29 a b c d | Q.39 a b c d | Q.49 a b c d |
| Q.10 a b c d | Q.20 a b c d | Q.30 a b c d | Q.40 a b c d | Q.50 a b c d |

1. As economists use the concept of "production," it is production:

   a) to raise wheat, but not to transport it.
   b) to build a house, but not to remodel it.
   c) to bake bread, but not to eat it.
   d) to manufacture a car, but not to run a used-car lot.

2. Of the following, which is the best definition of the economists' term "production?"

   a) creation of a good or service people are willing to pay for.
   b) intentional alteration of the form of a raw material.
   c) satisfaction of human wants.
   d) any combination of capital and labor.

3. Which of the following is the best definition of the concept "gross national product?"

   a) the utility consumers receive from their purchases in a year.
   b) the market value of final goods and services produced in a year.
   c) the nation's wealth.
   d) the wages paid for productive work done during a year.

4. In the national g.n.p. accounts, producers' goods like machinery, which are bought by businesses:

   a) are not counted as "product" because they are not "consumed."
   b) are not counted as "product" because they eventually are transformed into other "final" goods.
   c) are counted as "product" when they reach their final buyer.
   d) are only counted as "product" as they depreciate.

5. For a given company, "value added" is:

   a) the profit it makes on sales.
   b) the increase in value of its capital stock.
   c) the difference between its sales and the cost of its purchases of raw materials.
   d) the increase in the value of its inventories.

6. Adding up "value added" for all production units in the economy would give a figure equal to:

   a) gross national product.
   b) gross national income.
   c) total expenditure on final goods and services.
   d) all of the above.

7. Other things equal, if a corporation increases its dividend payments to stockholders:

   a) national income goes up.
   b) net national product goes up.
   c) personal income goes up.
   d) all of the above.

8. Suppose that in a certain country all production takes place in two firms, A and B, whose yearly sales, expenses and profits are given below. Firm A buys all its raw materials from B, and B buys all its raw materials from A.

|  | A | B |
|---|---|---|
| Sales | 100 | 200 |
| Raw Materials | 50 | 30 |
| Labor Costs | 40 | 80 |
| Depreciation | 8 | 20 |
| Profits | 2 | 70 |

   How large is gross national product in this country?

   a) 300
   b) 220
   c) 272
   d) 192

9. The term "real g.n.p." as contrasted with "dollar g.n.p." refers to:

   a) dollar g.n.p. corrected for price changes.
   b) the part of g.n.p. that is goods, as opposed to services.
   c) the part of g.n.p. that is really useful, not frivolous or wasteful production.
   d) dollar g.n.p. minus exports.

10. The value of national defense goods, such as bombs and bullets, that are produced in order to be used up in wars:

   a) is not counted in g.n.p.
   b) is counted as "consumption" in g.n.p.
   c) is counted as "government goods" in g.n.p.
   d) is subtracted from g.n.p.

11. In the basic theory of the determination of national income, the term "aggregate demand" is used to refer to:

   a) the amount of g.n.p. that could be produced if unemployment were zero.
   b) the combined expenditures of consumers, businesses and governments.
   c) the amount of demand that would arise for consumer goods if everyone had all the income he wanted.
   d) demand measured in the prices of some base period.

12. The basic determinants of the productive capacity of an economy are:

a) aggregate demand and the price level.
b) consumer, investor and government spending.
c) labor skills, resources and the level of technology.
d) the level of unemployment, and the frequency of depressions.

13. The "aggregate supply curve" for an economy shows:

a) how much was supplied in past years.
b) how much would be supplied at different levels of demand.
c) how much would be supplied at different price levels.
d) how much would be demanded at each level of capacity.

14. The theory of income determination says that if aggregate demand at present prices exceeds the capacity of the economy, prices will rise. And it says that if aggregate demand is below the capacity of the economy:

a) prices will fall.
b) aggregate demand will rise to capacity again in a short time.
c) the capacity of the economy will shrink.
d) there will be unemployment of men and factories.

15. Which of the following is the best definition of the term "inflationary gap?"

a) the difference at full employment between aggregate demand and aggregate supply at current prices.
b) the difference between aggregate supply at full employment and actual current aggregate supply.
c) the difference between aggregate demand at full employment and actual current aggregate demand.
d) the difference between current aggregate demand and current aggregate supply.

16. The central idea behind the "income-expenditures" theory of what determines the level of aggregate demand is that:

a) income and expenditures will be determined by the level of aggregate supply.
b) spending depends on incomes received.
c) spending and incomes depend on the supply of money.
d) income and expenditures are determined by economic growth.

17. In an economy which conducts no foreign trade and has no government sector:

a) income equals consumption plus investment.
b) saving equals income minus consumption.
c) saving equals investment.
d) all of the above.

18. $Y = C + I$
$C = 0.5Y$
$I = 50$

Suppose an economy can be represented by the above simple algebraic model. Then the equilibrium level of Y for this economy is:

a) 50
b) 100
c) 75
d) 200

19. In an economy with no government or foreign trade, it must be true that, in equilibrium:

a) consumption and investment are equal.
b) investment and saving are equal.
c) consumption and income are equal.
d) consumption minus saving equals investment.

20. $C = 100 + .8Y$

If the "consumption function" for an economy can be represented by the equation above, and if there is no government sector in the economy, then:

a) the amount saved is 20 if income is 600.
b) consumption is zero if income is zero.
c) consumption and income can never be equal.
d) people save less the higher their income.

21. According to the theory of national income determination, if businesses decide to raise their investment spending by $1 million, then:

a) g.n.p. will rise by $1 million.
b) consumption must drop by $1 million.
c) consumption and saving will both rise.
d) g.n.p. will probably not change.

22. In the theory of national income determination, the term "marginal propensity to consume" means:

a) the proportion of total income that is consumed.
b) the proportion of a small increase in income that is consumed.
c) the amount income will rise if consumption goes up.
d) the amount of an income increase that remains after taxes.

23. $Y = C + I$
$C = 10 + .5Y$
$I = 50$

In an economy represented by the model shown above, you would expect that if investment were to rise next year above 50, the increase in income that would result would be:

a) about equal to the change in investment.
b) about half of the change in investment.
c) about twice the change in investment.
d) negligible.

24. $Y = C + I$
$C = 100 + .9Y$
$I = 10$

In the economy represented by the above model, the size of the "investment multiplier" is:

a) 9/10
b) 10/9
c) 9
d) 10

25. In an economy with no government sector, saving must equal investment. In an economy with both private and government sectors:

a) saving must still equal investment.
b) taxes must equal government spending.
c) saving and taxes together must equal investment.
d) government spending on goods and services, minus taxes, must be equal to saving minus investment.

26. $Y = C + I + G$
$C = 50 + .75(Y - T)$
$T = 10$
$I = 20$
$G = 12$

In an economy like that above, where consumption depends on income after taxes:

a) a rise of 2 in G will have less effect on income than a rise of 2 in I.
b) the investment multiplier is 5.
c) if taxes and government spending both rise by 1, income won't change.
d) the investment multiplier and the government spending multiplier are equal.

27. The modern theory of income determination suggests that if investment spending suddenly goes up, threatening to cause too-high a level of aggregate demand:

a) a reduction in government spending can counteract it.
b) an increase in taxes can counteract it.
c) a decrease in consumption can counteract it.
d) all of the above.

28. In a consumption function of the algebraic form $C = a + bY$, if consumers always consumed 85% of income, regardless of its size:

a) a would be .85, and b would be 1.0.
b) a would be 1.0, and b would be .85.
c) a would be zero, and b would be .85.
d) a would be .85, and b would be zero.

29. As compared to consumption spending, investment spending can be characterized as:

a) larger in most years.
b) fluctuating more widely.
c) less important in explaining business fluctuations.
d) a more stable proportion of total g.n.p.

30. The difference between "gross" investment and "net" investment each year is:

a) net foreign investment.
b) spending on durable goods.
c) depreciation allowances.
d) the increase in the nation's capital stock.

31. The term "marginal efficiency of investment" means:

a) the going rate of interest.
b) the expected rate of return on new investment.
c) the cost of capital relative to the cost of labor.
d) the increase in output made possible by an increase in the capital stock.

32. On the basis of its usual definition, "money" in the modern U.S. economy consists:

a) about 20% of coins and paper currency, and 80% of demand deposits.
b) about 20% of coins, and about 80% of paper currency.
c) about 20% of savings deposits, and about 80% of demand deposits.
d) almost entirely of paper currency.

33. The basic control over the supply of money in existence is in the hands of:

a) people who deposit their money in banks.
b) the U.S. Treasury, which mints the coins.

c) banks, which establish demand deposits.
d) the Federal Reserve System, which controls the reserves that banks must hold.

34. Economists often argue that the amount of money people want to hold:

a) will rise if interest rates rise.
b) will fall if interest rates rise.
c) will rise if incomes fall.
d) will rise if prices fall.

35. If the government acts to stimulate g.n.p. by raising government spending without a tax increase, and if at the same time there is no change in monetary policy:

a) the predictions of the multiplier analysis, based on the income-expenditure model, will be substantially correct.
b) the rise in income may be smaller than the multiplier would predict, because demand for money will go up and interest rates will rise.
c) the rise in income may be greater than the multiplier would predict, because higher interest rates will stimulate investment.
d) income may not go up at all, because the money isn't available for increased spending.

36. The precise relation between increases in aggregate demand and price rises is unclear, but most economists agree that:

a) the main effect of increased demand is on prices, not output.
b) the first effect of increased demand is to raise prices, but later output goes up.
c) the effect of increased demand on prices is greater when the economy is near full employment than it is otherwise.
d) increased demand will usually both reduce prices and increase output, because firms' costs fall as output goes up.

37. If a bank has $1,000,000 in deposits, and $200,000 in reserves, and there is a legal reserve requirement of 20%:

a) it can make more loans in any amount it wishes, because reserves have to be held against deposits, not against loans.
b) it can make no more loans, because extending loans results in more deposits, which would violate the reserve requirement.
c) it can make a few more loans, if it does so by giving currency rather than deposits to the borrowers.
d) it can make no more loans, and in fact it must reduce them if anyone deposits any currency, since then it would be violating the reserve requirement.

38. Taking account of a 20% legal reserve requirement, and of the likelihood of adverse clearing balances, a bank with $1,000 in excess reserves would probably extend loans of about:

a) $200
b) $1,000
c) $3,000
d) $5,000

39. When the public withdraws currency from the banking system, assuming that the banks were "fully loaned up:"

a) new loans can be extended, because the withdrawals reduce deposits.
b) loans will stay the same, because the withdrawals reduce both reserves and deposits by the same amount.
c) loans must be reduced, because withdrawals will put banks below the legal reserve requirement.
d) nothing happens to loans, because currency withdrawals don't affect either deposits or reserves.

40. Which of the following items appears as a liability on the balance sheet of the Federal Reserve Banks?

a) U.S. government bonds.
b) member-bank reserves.
c) demand deposits of private citizens.
d) Treasury coins.

41. If the Federal Reserve System sells a government bond to a private individual (not to a member bank) the effect is to:

a) raise member bank reserves by about five times the amount of the bond.
b) raise member bank reserves by the amount of the bond.
c) not change member bank reserves.
d) reduce member bank reserves by the amount of the bond.

42. When the Federal Reserve raises member bank reserve requirements, say from 15% to 20%, the immediate affect is to:

a) increase reserves.
b) decrease reserves.
c) increase excess reserves.
d) decrease excess reserves.

43. It is fair to say that the powers of the Federal Reserve System to influence the size of the money supply are:

a) very small, because coins are issued not by the Federal Reserve, but by the Treasury.

b) very small, because the Federal Reserve Bank deposits are not part of the money supply.
c) very strong, because the Federal Reserve is the government's banker.
d) very strong, because it can create or destroy bank reserves in essentially unlimited amounts.

44. The public's demand for money balances to hold is likely to:

a) go up if income rises, or if interest rates rise.
b) go up if income rises, but down if interest rates rise.
c) go up if income rises, but be unaffected by interest rates.
d) be unaffected by changes in income or interest rates -- all that matters is Federal Reserve policy.

45. Two policies that the Federal Reserve might use if it thought aggregate demand should be increased are:

a) sell bonds in the open market, and raise reserve requirements.
b) buy bonds in the open market, and lower the rediscount rate.
c) raise the rediscount rate, and raise reserve requirements.
d) sell bonds in the open market, and raise the rediscount rate.

46. Banks as a group, at their own initiative, can increase the aggregate size of their reserves by:

a) selling government bonds to private persons.
b) borrowing from the Federal Reserve System.
c) borrowing reserves from other banks.
d) reducing their loans.

47. On the whole, statistics show that interest rates are high when the velocity of money is high. This fact is most nearly consistent with the idea that:

a) the interest rate is a measure of the cost of holding money balances.
b) velocity goes up when the supply of money goes up.
c) rapid growth in g.n.p. occurs when velocity is high.
d) banks "ration credit."

48. Which of the following factors is an important reason why banks will want to expand their loans and investments when the Federal Reserve acts to give them excess reserves?

a) they are legally required to expand loans if the Fed wishes it.
b) excess reserves are a non-interest-bearing asset for banks.
c) maintaining excess reserves is against the law.
d) if banks don't make use of the excess reserves, they fear that the Fed will remove them.

49. Other things equal, fiscal policy will produce a rise in g.n.p. if:

a) government expenditures exceed taxes.
b) government taxes exceed expenditures.
c) government taxes go up.
d) government expenditures go up.

50. Suppose a recession starts, and g.n.p. begins to drop. The effect of the g.n.p. change on the government's budget will probably be:

a) to move the budget toward surplus.
b) to move the budget toward deficit.
c) to decrease both revenues and expenditures by about equal amounts.
d) very little effect.

MID TERM MACROECONOMICS EXAMINATION - Objective    50 minutes

Answer Sheet

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Last name:    First name:

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Please circle the number which you think corresponds to the correct answer. Erase completely any answer you wish to change.

| | | | | |
|---|---|---|---|---|
| Q. 1   1 2 3 4 | Q. 8   1 2 3 4 | Q.15   1 2 3 4 | Q.22   1 2 3 4 | Q.29   1 2 3 4 |
| Q. 2   1 2 3 4 | Q. 9   1 2 3 4 | Q.16   1 2 3 4 | Q.23   1 2 3 4 | Q.30   1 2 3 4 |
| Q. 3   1 2 3 4 | Q.10   1 2 3 4 | Q.17   1 2 3 4 | Q.24   1 2 3 4 | Q.31   1 2 3 4 |
| Q. 4   1 2 3 4 | Q.11   1 2 3 4 | Q.18   1 2 3 4 | Q.25   1 2 3 4 | Q.32   1 2 3 4 |
| Q. 5   1 2 3 4 | Q.12   1 2 3 4 | Q.19   1 2 3 4 | Q.26   1 2 3 4 | Q.33   1 2 3 4 |
| Q. 6   1 2 3 4 | Q.13   1 2 3 4 | Q.20   1 2 3 4 | Q.27   1 2 3 4 | Q.34   1 2 3 4 |
| Q.7   1 2 3 4 | Q.14   1 2 3 4 | Q.21   1 2 3 4 | Q.28   1 2 3 4 | Q.35   1 2 3 4 |

1 Two major events recently took place in the economy of Wupwup: (1) the level of total spending rose dramatically, and (2) trade unions received wage increases of 10% while labor productivity had increased 3%. Using Phillips Curve analysis, what should happen to the levels of inflation and unemployment in Wupwup?

1 The inflation rate should rise and the unemployment rate should fall.

2 The inflation rate should rise, but the effect on unemployment cannot be determined with the information given.

3 The unemployment rate should fall, but the effect on prices cannot be determined with the information given.

4 It is not possible to predict changes in either inflation rates or unemployment rates with the information given.

2 Which of the following is not a reasonable explanation of why the Phillips Curve for the US economy has been shifting to the right over the past few years?

1 The growth rate of the labor force has been greater than the rate at which the economy has been able to create jobs for workers.

2 Spending done by the federal government for the Vietnam War had large effects on prices but very little effect on employment.

3 There has been a general inflation of world prices involving many commodities which the US imports.

4 People have come to fear and expect higher rates of future inflation. This is reflected in wage increases demanded by labor, in interest rates charged by banks, etc.

3 In an effort to make more houses available, the city of Washington, DC, is investigating the elimination of rent controls. Which of the following is the most likely series of events if rent controls are eliminated?

1 An increase in rents followed by an increase in the housing quantity supplied.

2 An increase in demand followed by a decrease in the housing quantity supplied.

3 A decrease in rents followed by a decrease in the housing quantity supplied.

4 A decrease in demand followed by an increase in the housing quantity supplied.

4 During the first year that the Swine 'flu vaccine became available, the quantity produced was too small to innoculate all those desiring the vaccination. Although the cost of production and the price were not particularly high, production could not be expanded rapidly enough to meet the demand. The government therefore helped allocate the available vaccine. What do these facts suggest about the price of the vaccine during the first year?

1 The price was at equilibrium.

2 The price was above equilibrium.

3 The price was below equilibrium.

4 There is not enough information to tell.

5 Evaluate this statment: "In advising governments about policy, it is the economist's role to set target variables for policy, thereby facilitating the identification of appropriate changes in instrument variables which will produce the targets."

1 Agree. Target-variable setting is outside the appropriate domain of the political process.

2 Agree. Target -variable setting is beyond the technical capacity of politicians untrained in formal economic analysis.

3 Disagree. Target-variable setting involves normative judgements beyond the professional domain of the economist.

4 Disagree. Target-variable setting involves selected elements of mathematical analysis which the economist is often ill-equipped to handle.

6 The federal system of taxation acts as a built-in stabilizer because:

1 when GNP changes, Congress typically legislates changes in tax rates.

2 when GNP changes, the tax structure changes automatically.

3 tax collections tend to rise and fall as government spending rises and falls.

4 when GNP changes, tax receipts change automatically in the same direction without any change in rates.

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7 Hisville's taxation function looks like this: $T = 50 + .1Y$

Hersville's taxation function has this form: $T = 250$

Which of the following best describes the relationship between the taxation and spending multipliers within each country?

1 The taxation multiplier is one less than the spending multiplier in Hersville.

2 The difference between the taxation and spending multipliers in Hisville is less than one.

3 If government spending and taxes were simultaneously increased by 10 in each country, the resulting change in equilibrium GNP would be larger in Hersville.

4 All of the statements above are true.

8 Which of the following is a normative statement?

1 The Russians put a man on the moon before we did.

2 The Russians could have put a man on the moon before we did but chose not to.

3 Many Europeans would have preferred to see the Russians put a man to the moon before we did.

4 It would have been better for mankind if the Russians had put a man on the moon before we did.

9 If you feel that the government should conduct an active fiscal policy, but you also feel that the government sector is presently too large, then in the event of a recession you would argue that:

1 the government should not take any action.

2 the government should decrease taxes.

3 the government should increase transfer payments.

4 the government should increase spending for goods and services.

10 In a certain year the target level of aggregate demand is $280 billion. In the same year it is estimated that government expenditures will be $80 billion, taxes will be $60 billion, consumer expenditures will be $140 billion, private investment expenditures will be $80 billion, and saving will be $80 billion. To attain price stability under these conditions the government should:

1 encourage private investment spending by reducing corporate taxes.

2 increase government expenditures for goods and services.

3 discourage personal saving by reducing the interest rate.

4 increase personal income tax rates.

11 Which of the following programs would be most effective in reducing the amount of inflationary bias in the US economy?

1 instituting a price freeze on goods whose prices rose faster than the average price level over the last five years

2 elimination of institutional factors which keep prices from falling in markets characterized by excess supply

3 negotiating new trade agreements with Arab countries in which we exchange technological advances for lower prices on their exported oil

4 declaring wage increases greater than corresponding increases in productivity to be illegal

12 Which of the following is the best explanation for the existence of an "inflationary bias" in the US economy?

1 Rising prices in markets with excess demand are not fully offset by falling prices in markets with excess supply.

2 Trade unions consistently demand and receive wage increases larger than corresponding increases in labor's productivity.

3 Rising prices of goods like oil which we must import make it impossible for the government to maintain price stability.

4 When forced to live with either inflation or unemployment, the majority of citizens prefer inflation.

QUESTIONS 13 - 19 ARE BASED UPON THE FOLLOWING MODEL OF A SIMPLE ECONOMY

$C = 100 + .75Y_d$ $\qquad Y_d = Y - T$

$I = 80$ $\qquad E = C + I + G$

$G = 120$ $\qquad Y = E$

$T = 100$

13 Identify the endogenous variables in this model

1 $C, Y, Y_d, E$

2 $I, G, T$

3 $Y, E$

4 $C, Y, T$

14 Identify the exogenous variables in this model:

1 $C, Y, Y_d, E$

2 $I, G, T$

3 $Y, E$

4 $C, I, G$

15 How many parameters are there in this model

1 none

2 one

3 two

4 more than two

16 Determine the equilibrium level of GNP:

1 900

2 1125

3 1200

4 none of the above 203

(BASED UPON THE MODEL)

17 What is the value of the spending multiplier in this model?

1 1.33

2 3

3 4

4 none of the above

18 What is the value of the taxation multiplier in this model?

1 -1.33

2 -2

3 -4

4 none of the above

19 How much consuption spending would be done in this economy if GNP were 1100?

1 675

2 775

3 850

4 925

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20 According to the simple income-expenditure model,

1 the chief cause of unemployment is insufficient spending.

2 the equilibrium level of national income will tend to coincide with the full-employment level of income.

3 inflation and employment are indirectly or negatively related.

4 tax cuts or government spending cuts may be used to increase employment, but tax cuts are more powerful.

QUESTIONS 21 and 22 ARE BASED UPON THE FOLLOWING INFORMATION

The consumption function for Camelot is $C = 100 + .8Y_d$. The country is experiencing a rather severe recession, and policy makers are attempting to devise measures to increase equilibrium income and employment.

21 One government official suggests than in increase of $4 million in government spending would increase equilibrium GNP by $20 million. Do you agree?

1 Yes. If the MPC is .8, then the multiplier is 5.

2 Yes. In recessions, a government spending increase of $1 would increase equilibrium GNP by at least $5.

3 No. In times of recession the usual multiplier calculation is inappropriate.

4 No. Without knowing the form of the taxation function, it is not possible to estimate the value of the multiplier.

22 Studies have shown that residents of Camelot with incomes of less than $10,000 per year spend a larger fraction of additions to their incomes than residents whose annual incomes are larger than $10,000. It has therefore been suggested that a plan which increases taxes on incomes greater than $10,000 and decreases taxes on lower incomes by exactly the same amount would increase consumption and aggregate income. Do you agree?

1 Yes. In addition, this will increase the economy's overall marginal propensity to consume and therefore increase the size of the multiplier.

2 Yes. Although the size of the multiplier remains unchanged, the amount of consumption spending and equilibrium income will increase.

3 No. In this plan the total amount of taxes collected does not change, so neither will equilibrium GNP.

4 No. This argument confuses changes in the distribution of income with changes in the level of aggregate income.

23 What can you conclude if the increase in nominal GNP is greater than the increase in real GNP during the same year?

1 Real GNP has increased while prices have risen.

2 Real GNP has increased while prices have fallen.

3 Nominal GNP has increased while prices have remained constant.

4 Nominal GNP has increased while prices have fallen.

24 Which of the following propositions is not true of a government that seeks to create full employment in the face of a substantial deflationary gap?

1 The gap can be removed by either increasing government expenditure and holding taxes constant or by cutting taxes and holding expenditure constant.

2 The budget deficit required to remove the deflationary gap will be larger if it is accomplished by increasing expenditures than if it is accomplished by cutting taxes.

3 It would be possible to develop a balanced-budget fiscal policy that would remove the deflationary gap, but this would result in a larger government sector than a policy which uses a deficit-spending budget.

4 It would be possible to remove the gap without incurring a budget deficit if there were policies available that could induce sufficient increases in private investment spending.

25 Congressman Ima Winner testified at a Congressional subcomittee that a major reason for the growth in the GNP gap is that the federal tax schedule has not been significantly changed in the last ten years. Ms Winner stated that in a growing economy, tax parameters will have to be periodically decreased in order to promote full employment. Do you agree?

1 Yes. Ms Winner has described the phenomenon known as "fiscal drag".

2 Yes. Consumption spending is stimulated by the element of uncertainty, and changing tax schedules every two or three years will stimulate consumer spending.

3 No. Ms Winner is overlooking the fact that a progressive tax structure acts as a built-in stabilizer for the economy.

4 No. If Congress continually reduces tax collections as GNP grows, the economy will soon be faced with runaway inflation.

26 Evaluate this statement: "As long as per capita money incomes are rising in the United States, so is the standard of living of its citizens."

1 The statement is essentially correct.

2 The statement is true only when incomes are rising at the same rate as prices.

3 The statement fails to distinguish between real income and nominal income.

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4 The statement is true during economic booms, but is incorrect in periods of recession.

27 Assume that an economy is presently operating at an "ideal" level in terms of the goals of price stability and employment. The government, however, wishes to undertake a $20 billion defense program without sacrificing any of its present programs. How can the government increase spending by $20 billion without disturbing the present levels of prices and employment?

1 Increase taxes by somewhat more that $20 billion, thereby offsetting the stimulatory effect of government spending.

2 Increase taxes by $20 billion, thereby achieving a balanced incremental budget which is neutral to employment and price levels.

3 Increase taxes by somewhat less than $20 billion, thereby engendering a countercyclical multiplier effect due to the displacement of private investment.

4 There is no feasible way in which government spending can be increased without changing the levels of prices and employment.

28 Which of the following statements is incorrect?

1 The values of parameters in a model depend upon the values of the endogenous variables.

2 Endogenous variables are those whose values are determined within the model.

3 Exogenous variables influence the values of endogenous variables.

4 Identities are relationships that are true by definition.

29 Economy A has an exogenous tax structure with respect to income, while Economy B has an endogenous tax structure with respect to income. Both economies originally have balanced budgets. If chronic GNP gaps of equal size develop in each country, and if the respective governments decide to eliminate the gaps using balanced-budget fiscal policies, the size of the government sector:

1 would grow faster in the economy with the exogenous tax structure.

2 would grow faster in the economy with the endogenous tax structure.

3 would grow at the same rate in each country, given a balanced-budget framework.

4 no comparison can be made on the basis of the information given.

30 In the relationship known as Okun's Law, $U = U_f + c \cdot \%$ GNP gap, what does it mean to say that the 'c' parameter has decreased in recent years?

1 A given decrease in the unemployment rate can now be achieved with a smaller increase in equilibrium GNP.

2 A given decrease in the unemployment rate can now be achieved only with a larger increase in equilibrium GNP.

3 Each percentage point of unemployment now costs the economy more in terms of foregone GNP.

4 Attempts to achieve full employment through the use of fiscal policies will now be more difficult.

31 In the relationship know as Okun's Law, $U = U_f + c \cdot \%$ GNP gap, what does it mean to say that the value of 'c' is 1/3?

1 In order to decrease unemployment by one percentage point, GNP must be increased by 3%.

2 In order to decrease unemployment by three percentage points, GNP must be increased by 1%.

3 In order to decrease the GNP gap by 3%, the full-employment unemployment rate must be decreased by one percentage point.

4 In order to decrease the GNP gap by 3%, the full-employment unemployment rate must be increased by one percentage point.

32 East Euphoria, a country with a progressive income tax, is faced with high unemployment. Their President has approved a program whereby total government spending next year will exceed this year's tax revenues by $60 million. Which of the following statements best describes the relationship between that fiscal program and the unemployment problem?

1 The excess of spending over tax revenues means that the government sector is stimulating employment.

2 While the government's program will increase employment, its effect on unemployment cannot be assessed without knowing the level of potential GNP.

3 In order to achieve full employment, the government should implement a balanced budget.

4 Because tax revenues increase as equilibrium income increases, the government sector may or may not be promoting employment as the economy moves toward full employment.

33 Which of the following economies could possess the largest fiscal drag?

1 One in which the citzens are taxed by a head tax on each member of the population.

2 One in which the citizens are taxed by property taxes.

3 One in which the citizens are taxed by a progressive income tax.

4 One in which the government collects no taxes.

QUESTIONS 34 and 35 ARE BASED UPON THE FOLLOWING INFORMATION

At the present time, Upper and Lower Volta have identical consumption, investment, and government spending functions. The personal income taxation schedules for each country are given below:

Upper Volta

| Income Level | Tax Owed |
|---|---|
| 0 - 1000 | 100 |
| 1001 - 2000 | 100 |
| 2001 - 3000 | 100 |
| 3001 - 4000 | 100 |

Lower Volta

| Income Level | Tax Owed |
|---|---|
| 0 - 1000 | 100 |
| 1001 - 2000 | 110 |
| 2001 - 3000 | 120 |
| 3001 - 4000 | 130 |

Both countries have an unemployment rate of 7% and an inflation rate of 6%

34 A proposal is made in the legislatures of each country to combat inflation with an $8 million decrease in government spending. In which country would this action be more successful in terms of lowering the inflation rate?

1 In Lower Volta.

2 In Upper Volta.

3 If government spending is decreased by the same amount in each country, the effect on inflation should be the same in each case.

4 Because of the simultaneous problem of unemployment, government spending decreases would not be effective in either country.

35 Economists have determined that if Upper Volta were to increase taxes by $10 million or decrease government spending by $8 million, the inflation rate would fall two percentage points and the unemployment rate would rise three percentage points. Based upon that information, some legislators now argue that neither action should be taken. What would you recommend to the legislature?

1 No action should be taken, because the increase in unemployment is greater than the decrease in inflation.

2 No action should be taken, because either action might worsen future trade-offs between inflation and unemployment.

3 Without knowing the equation for the Phillips Curve which this economy faces, there is not enough information to make a recommendation.

4 Without knowing society's relative preferences between inflation and unemployment, there is not enough information to make a recommendation.

Midterm Examination - Essays

Answer all questions, time allowed - 2 hours.

1. Consider an economy whose structure can be represented by the following model:

$$Y = C + I + G \qquad a = 20\%$$
$$C = 20 + .5D \qquad b = 40\%$$
$$I = 10 + .1Y$$
$$GX = G + F$$
$$D = Y - T + F$$
$$F = aY$$
$$T = bY$$

All variables are in real terms. Ignore questions of price change and of the influence of the monetary sector. There is no foreign trade. Y is GNP, C is personal consumption expenditure, I is gross private investment, G is government expenditure on goods and services, D is personal disposable income, GX is total government expenditure, F is government expenditure on transfer payments, T is total tax revenues, a is the ratio of transfers to income, and b is the ratio of taxes to income.

On the basis of this model, comment on the correctness of the following statements, and justify your comments.

i A dollar's increase in transfer payments (with no change in the tax rate, b) will raise GNP by more than a dollar's decrease in tax revenues (with no change in the transfer rate, a); but a dollar's increase in government spending on goods and services (leaving both a and b unchanged) will raise GNP more than either.

ii From the point of view of changing GNP, it doesn't matter whether you change the rate of transfer payments (a) or the rate of taxes (b) - equal changes of these parameters would have equal effects.

iii If the government spends 20 on goods and services, and if Y turns out to be 100 for the year, the government budget surplus will be 5. And if the full-employment level of income is 120, the government's "Full-Employment Surplus" is 10.

iv If the government spends only 15 on goods and services, Y will be 90. At this level of G, however, the government could bring about full-employment income (120) by reducing the tax rate (b) to 20%.

2. The following passage appears in one of the Reports of the President's Council of Economic Advisers:

> "There is, of course, good reason to expect some fairly close relationship between money and income. This would be true even in a completely abstract situation in which it was assumed that the money supply per se had no direct influence on GNP, and that monetary policy worked entirely through interest rates. Since interest rates and the money supply are inversely related, any rise in GNP produced by a reduction in interest rates and increased credit availability would be accompanied by at least some increase in the money supply."

Critically evaluate this statement in the light of the theories studied in the course concerning the relation of the monetary and real sectors.

3. Over the past few years there have been sharp disagreements as to the optimal "mix" of monetary and fiscal policy that will help most to achieve national economic objectives. What mix would you recommend for the present situation? (Your answer will be graded on the analysis and explanation in support of your recommendation.)

## Continuous Student Evaluation Questionnaire

Traditionally in institutions of higher education little attention has been paid either to student opinion of the course and instructors, or to what students think they have learned. Final examination marks tend to be the only measuring rod of course output. It is possible that the subjective opinions of students and instructors, especially where non-traditional teaching methods have been used, are not only valid measures of course output but may be the critical factor in determining the optimal type of course for students, instructors and institutions.

Because of the potential of such information your careful and considered answers to the questions below are extremely important.

## Continuous Student Evaluation Questionnaire

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Surname: Forename:

---

| | | | | | |
|---|---|---|---|---|---|
| What is your opinion of the overall value of this course, taking into account your enjoyment of the teaching methods and the amount which you feel you have learned so far? Circle the appropriate number on the scale. | LOW | | | | HIGH |
| | 1 | 2 | 3 | 4 | 5 |

---

On the scale below, circle the number which you feel accurately reflects your enjoyment with the different methods of teaching to which you have been exposed during this course.

| | LOW | | | | HIGH |
|---|---|---|---|---|---|
| Lectures | 1 | 2 | 3 | 4 | 5 |
| Textbook | 1 | 2 | 3 | 4 | 5 |
| Readings | 1 | 2 | 3 | 4 | 5 |
| Workbook | 1 | 2 | 3 | 4 | 5 |
| Tutorials | 1 | 2 | 3 | 4 | 5 |

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Continuous Student Evaluation Questionnaire (2)

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At the beginning of this course you were provided with a detailed course outline which set out the main topics to be covered in the course. Up to this time you have covered the following topics:

1. BASIC MACROECONOMIC CONCEPTS
2. A SIMPLE MODEL OF INCOME AND EXPENDITURE DETERMINATION
3. AGGREGATE DEMAND, UNEMPLOYMENT, AND INFLATION
4. THE EXPANDED MODEL FOR POLICY MAKING

Allocate 100 points among the teaching methods listed below to reflect the contribution you consider they have made to your understanding of these topics:

| Lectures | Textbook | Readings | Workbook | Tutorials | None of These | TOTAL |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |

---

You have now been studying economics for four weeks. The following questions refer to the use which you have of each teaching method.

Lectures: How many of the thirteen lectures have you attended? ________

Textbook: How many of the fourteen recommended chapters have you read? ________

Readings: How many of the recommended readings have you read? ________

Workbook: How many of the five recommeded assignments have you completed? ________

Tutorials: How many of the five tutorials have you attended? ________

---

## Answer Sheet for Part A of Final Examination - Macroeconomics

**Last name:** **First name:**

Circle the letter which you think corresponds to the correct answer. Erase completely any answer you wish to change.

Q. 1 a b c d

Q. 2 a b c d

Q. 3 a b c d

Q. 4 a b c d

Q. 5 a b c d

Q. 6 a b c d

Q. 7 a b c d

Q. 8 a b c d

Q. 9 a b c d

Q.10 a b c d

Q.11 a b c d

Q.12 a b c d

Q.13 a b c d

Q.14 a b c d

Q.15 a b c d

Q.16 a b c d

Q.17 a b c d

Q.18 a b c d

Q.19 a b c d

## Final Examination - Macroeconomics

### Part A - Objective Questions

### Answer all questions

1. A government has decided by how much to increase government expenditure to achieve full employment. A group of research economists discovered that on average the amount of income consumers were prepared to spend on domestically produced goods out of an additional dollar of income was lower than the government had anticipated and the amount they were prepared to spend on imported goods out of an additional dollar of income was higher than the government had anticipated. In order to achieve full employment, what would be the appropriate government policy, assuming fixed exchange rates?

   a. Greater government expenditure than originally planned.
   b. No change in government expenditure, since the changes would be offsetting.
   c. Greater government expenditure than originally planned only if the propensity to import changed more than the propensity to consume domestically produced goods.
   d. Greater government expenditure than originally planned only if the propensity to import changed less than the propensity to consume domestically produced goods.

2. Which of the following are sound reasons why a person might hold part of his wealth in the form of money even though money does not yield any interest?

   1. To avoid the costs of selling securities each time he wants to purchase a good.

   2. To avoid the risk of changes in the value of securities due to interest rate changes.

   3. To reap the gains from a revaluation upward of other nation's currencies.

      a. 1 only
      b. 1 and 2 only
      c. 3 only
      d. 1 and 2 and 3

3. To help reduce inflationary pressures in the United States, which of the following policies would be appropriate?

1. Lengthening the repayment period on consumer loans.

2. Increasing the down-payment requirement in the purchase of oncumser durables.

3. The sale of securities by the Federal Reserve.

a. 1 and 2 only
b. 2 only
c. 2 and 3 only
d. 3 only

4. Which of the following must be true when inflation occurs and the economy is operating at less than full employment?

1. Aggregate demand exceeds full employment output.

2. Increases in wages or other income payments exceed factor productivity increases.

3. The money supply is increasing at a faster rate than full employment output.

a. 1 only
b. 2 only
c. 1 and 3 only
d. 2 and 3 only

5. Which of the following would make possible higher living standards throughout the world?

1. An increase in the skills of the labor force in each country.

2. An increase in the stock of capital goods in each country.

3. An increase in protective tariffs in each country.

a. 1 only
b. 1 and 2 only
c. 1 and 3 only
d. 1 and 2 and 3

6. When the economy is operating at full employment and also at full utilization of non-labor resources, which of the following will be inflationary assuming all other things unchanged?

   1. An increase in labor productivity

   2. An increase in exports

      a. 1 only
      b. 2 only
      c. Both 1 and 2
      d. Neither 1 nor 2

7. Which of the following could explain why a given increase in government expenditure does not always lead to a greater than equal increase in real national output?

   1. There may not be a sufficient quantity of unemployed resources to produce such an increase in real national output.

   2. Resource owners and firms may respond by raising resource and product prices instead of supplying such an increase in real national output.

      a. 1 only
      b. 2 only
      c. Both 1 and 2
      d. Neither 1 nor 2

8. If, in an economy operating at full employment, personal income taxes are increased, which of the following policy goals would likely be thwarted, other things being equal?

   1. Full employment.

   2. Decrease in the balance of payments deficit.

   3. Decrease in the rate of inflation.

      a. 1 only
      b. 1 and 2 only
      c. 1 and 3 only
      d. 2 and 3 only

9. In response to a certain country's worsening balance of payments position, increasing inflation and rising unemployment, the government devalued the currency, lowered income taxes and increased the bank rate. What can be inferred about the government's attitude from its policies?

   a. The government was more concerned about the deteriorating balance of payments than the rising unemployment
   b. The government was more concerned about the rising unemployment than the increasing inflation
   c. The government was more concerned about the deteriorating balance of payments than the increasing inflation
   d. It is not possible to say about which problem the government was more concerned

10. The following table yields information on national income and the rate of growth in the market value of goods and services for three countries:

| Country | National Income (billions of $ in 1977 prices) | Growth in market value of goods and services (percentage per year) |
|---|---|---|
| KU | 160 | 3 |
| Napaj | 120 | 10 |
| RSSU | 500 | 6 |

Assuming that the growth rates will not change, which of the following can be deduced from the information given?

1. RSSU has a higher average living standard than KU.

2. Production in Napaj is more labour intensive than in KU or RSSU.

3. The stock of capital is increasing more quickly in Napaj than in KU or RSSU.

   a. 1 and 2 only
   b. 2 and 3 only
   c. 1 and 2 and 3
   d. Neither 1 nor 2 nor 3

11. "Since there is a limit to the amount of goods and services a nation can produce in a given year, any expansion of a nation's currency will mean a proportional diminution in its real value. One has only to look at the history of the pound Sterling to see that this is true; its purchasing power today is a mere fraction of what it was a few decades ago."

Which of the following is true? The quotation is

a. incorrect, since the exchange rate determines the value of a nation's currency
b. incorrect, since increases in the money supply may lead to increases in the output of goods and services
c. correct, since historically all money supply increases have been associated with corresponding price level increases in the U.K.
d. correct, since a nation's wealth or resources are in fixed supply at any point in time

12. "An economy at full employment experienced a sharp increase in aggregate demand as a result of a temporary increase in government expenditure to carry out a massive motorway construction program. As a consequence, the rate of inflation increased. After the construction program was completed, aggregate demand returned to its initial level, but the rate of inflation did not fall back to its initial level."

Which of the following could explain the high rate of inflation after aggregate demand returned to its initial level?

1. The inflation caused by the increase in aggregate demand changed expectations about future price increases.

2. One effect of the temporary increase in government expenditure was to create a larger supply of money.

a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

13. Suppose that we had a fixed exchange rate system and that a drastic decline in the national income of all other countries led to a decline in this country's exports. Also suppose that in response to this the U.S. government increased the interest rate from 6 per cent to 10 per cent but made no other change in policy. What could be inferred about the U.S. government's attitude towards the change in economic conditions that would have resulted from the decline in foreign income? The government was

a. more concerned about the rising inflation than the deteriorating balance of payments
b. more concerned about the deteriorating balance of payments than the rising unemployment rate
c. more concerned about the deteriorating balance of payments than the rising inflation
d. more concerned about the rising unemployment rate than the deteriorating balance of payments

14. "The more money there is in the economy, the more people spend. The more people spend, the higher the national income. Therefore, the greater the supply of money, the better off people are."

Which of the following is true?

a. The statement is incorrect because more money in the economy does not usually lead to more spending
b. The statement is incorrect because real income is limited by the economy's capacity to produce
c. The statement is correct because an increase in spending can lead to an increase in income
d. The statement is correct because the amount of money in the economy determines how well off people are

15. Which of the following features must a good economics model have in order to help us understand the economy?

1. It must be completely realistic.

2. It must be simple enought to understand.

3. It must capture some essential feature of the economy.

a. 1 and 2 only
b. 1 and 3 only
c. 2 and 3 only
d. 1, 2 and 3

16. Which of the following explains why a decrease in the quantity of money will result in a rise in the rate of interest?

1. The quantity of money demanded decreases as the rate of interest increases.

2. The demand curve for money slopes downward from left to right.

3. The quantity of securities demanded increases as the rate of interest increases.

a. 1 only
b. 2 only
c. 1 and 2 only
d. 1, 2 and 3

17. Which of the following explains why considerable unemployment can exist in a market economy?

a. At full employment, national income is not always sufficient to purchase all output produced
b. Many product and factor prices respond very slowly when supply exceeds demand
c. The rate of productivity increase is not always great enough to permit sufficient growth of actual output
d. The growth of productivity capacity outstrips the growth of consumers' private wants

18. Which of the following explains why an increase in aggregate demand does not always lead to an equal increase in real GNP?

1. Potential GNP is an upper limit to real GNP.

2. There is not a sufficient quantity of resources to produce all levels of real GNP.

3. Resource owners and firms may respond by raising resource and product prices instead of producing more output.

a. 1 and 2 only
b. 1 and 3 only
c. 2 and 3 only
d. 1, 2 and 3

19. Is the analysis in the following statement correct or incorrect, and why?

"If we had a fixed exchange rate, our imports of goods and services would exceed our exports of goods and services by $4 billion. At the same time, capital investment abroad by United States residents would exceed foreign capital investment in the United States by $6 billion. Consequently, there would be a net inflow of gold and foreign exchange in the absence of any other foreign transactions."

a. Correct, because the inflow from foreign capital investment would exceed the outflow from the balance of trade
b. Incorrect, because whenever imports of goods and services exceed exports of goods and services, a country will have a balance of payments problem
c. Correct, because the net foreign capital investment would increase U.S. assets abroad by $6 billion, which would exceed the deficit in the balance of trade.
d. Incorrect, because the deficit in the balance of trade plus the foreign capital investment would cause an outflow of gold and foreign exchange.

Part B - Cases

Answer both questions

1. Many economists consider 1970-75 to be an unusual period in U.S. economic history. The following data are for key variables during this period:

| | GNP (current prices, $ billions) | GNP Deflator (1958=1.00) | Unemployment (millions) | Labor force (millions) | Potential GNP (1958 prices, $ billion) |
|---|---|---|---|---|---|
| 1970 | 977 | 1.35 | 4.1 | 82.7 | 768 |
| 1971 | 1055 | 1.42 | 5.0 | 84.1 | 799 |
| 1972 | 1158 | 1.46 | 4.8 | 86.5 | 831 |
| 1973 | 1295 | 1.54 | 4.3 | 88.7 | 864 |
| 1974 | 1397 | 1.70 | 5.1 | 91.0 | 898 |
| 1975 | 1499 | 1.85 | 8.5 | 94.4 | 933 |

Using this information wrtie an article for "Newsweek" magazine describing economic development in the United States during 1970-1975. Make sure you provide the reader with knowledge of what happened to the rate of change in labor productivity, the rate of unemployment, the rate of inflation, the output gap, and any other factors you feel are important. On the basis of your knowledge of the U.S. economy, explain in what ways this period can be described as being unusual.

2. Imagine that you were the economic adviser to the president of a hypothetical country very much like the United States. You have available to you the following data on the economy:

| Year | Y | C | I | G | T |
|---|---|---|---|---|---|
| 1 | 625 | 420 | 105 | 100 | 100 |
| 2 | 525 | 360 | 65 | 100 | 75 |

You may assume that G, T and I are independent of Y and that the rate of interest is constant throughout. You may also assume that retained business earnings and government transfer payments are zero. Finally, you may assume that the changes in I and T were the only autonomous changes from year 1 to year 2.

From the data you have compute the marginal propensity to consume and the I, G and T multipliers. What change in GNP from year 2 to 3 would you expect from an increase in I of 10? If potential GNP were equal to 725 in year 3, by how much would G have to change from year 2 to year 3 in order to have full employment in year 3? By how much would G and T each have to change from year 2 to year 3 in order to have full employment in year 3? Explain the economic reasoning behind your answers.

## Part C - Essays

Answer both questions

1. One of the analytical concepts used by economists to explain real world events is the Phillips curve relationship. Much of the failure of economists, during the 1970s, to forecast accurately the rates of inflation and unemployment and of the inability of policy makers to maintain low rates of inflation and unemployment has been attributed to shifts in the Phillips curve. Explain what the Phillips curve is and why it exists. What factors might have caused the apparent shifts in the Phillips curve in the 1970s? If there were to be another dramatic shift in the Phillips curve, what policy response would you recommend?

2. In recent years, one issue that has been hotly debated is whether the government should rely primarily on fiscal policy or monetary policy to regulate aggregate demand. In this controversy, three positions have been taken: The "Extreme Keynesian" (or fiscal policy) position that when it is needed most monetary policy will be ineffective and only fiscal policy will work; the "Extreme Monetarist" (or monetary policy) position that fiscal policy will not work and only the supply of money matters in determining the level of aggregate demand; and the "Orthodox" or "Reasonable Man", position, which says that both monetary and fiscal policy can be effective.

   What are the sources of disagreement between the three positions taken? How in principle can they be resolved?

## End-of Quarter Student Evaluation Questionnaire

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**Name:**

---

| | | | | | |
|---|---|---|---|---|---|
| How would you compare the amount of time spent on this course with the amount of time spent on other courses you took this quarter? Circle the appropriate number. | LOW | | | | HIGH |
| | 1 | 2 | 3 | 4 | 5 |

If your answer to the above question was low (i.e. 1 or 2), please give the reason(s). Tick the appropriate box(es).

High volume of written work in other courses ☐

High volume of reading work in other courses ☐

Economics is not my major subject ☐

I find the course uninteresting ☐

Other (specify)............................. ☐

If your answer to the above question was high (i.e. 4 or 5), please give the reason(s). Tick the appropriate box(es).

High volume of written work in tutorials in the course (e.g. essays, cases, etc.) ☐

High volume of reading work in the course ☐

Economics is my major subject ☐

I find the course interesting ☐

Other (specify)............................. ☐

---

On the scale below, circle the number which reflects your enjoyment with the teaching methods used this quarter.

| | LOW | | | | HIGH |
|---|---|---|---|---|---|
| Lectures | 1 | 2 | 3 | 4 | 5 |
| Textbook | 1 | 2 | 3 | 4 | 5 |
| Readings | 1 | 2 | 3 | 4 | 5 |
| Workbook | 1 | 2 | 3 | 4 | 5 |
| Tutorials | 1 | 2 | 3 | 4 | 5 |

**End of Quarter Student Evaluation Questionnaire** (2)

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Circle the number which reflects your opinion of economics in relation to the characteristics listed.

| | | LOW | | | | HIGH |
|---|---|---|---|---|---|---|
| Economics is: | relevant to real life | 1 | 2 | 3 | 4 | 5 |
| | interesting | 1 | 2 | 3 | 4 | 5 |
| | intellectually demanding | 1 | 2 | 3 | 4 | 5 |

---

Allocate 100 points among the teaching methods to reflect the contribution each has made to your understanding of this course.

| Lectures | Textbook | Readings | Workbook | Tutorials | None of These | TOTAL |
|---|---|---|---|---|---|---|
| | | | | | | 100 |

If the final examination this term were to reflect macroeconomics comprehension accurately, in which of the following categories of marks would you appear? Circle the number which applies.

| <20 | 21-30 | 31-40 | 41-50 | 51-60 | 61-70 | 71-80 | >80 |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

---

Knowing now what you do about this course, would you have taken this course if it were not required? Tick the appropriate box.

Yes ☐

No ☐

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## End of Quarter Student Evaluation Questionnaire (3)

Each of the teaching methods used in this course has a number of characteristics which contribute to learning. Allocate 100 points among the characteristics for each method to reflect the extent to which each characteristic has contributed to your learning.

| Method | Feedback | Gearing to individual needs | Applicability to real life | Other | TOTAL |
|---|---|---|---|---|---|
| Lectures | | | | | 100 |
| Textbook | | | | | 100 |
| Readings | | | | | 100 |
| Workbook | | | | | 100 |
| Tutorials | | | | | 100 |

Students vary in their learning needs, some of which are listed below. Allocate 100 points among the teaching methods to reflect the extent to which each met your learning needs.

| TECHNIQUE | Identifying areas of weakness | Clarifying concepts | Connecting different concepts | Applying concepts to real life problems | Analysing complex situations | Evaluating economic policy decisions | TOTAL |
|---|---|---|---|---|---|---|---|
| Lectures | | | | | | | 100 |
| Textbook | | | | | | | 100 |
| Readings | | | | | | | 100 |
| Workbook | | | | | | | 100 |
| Tutorials | | | | | | | 100 |

## End of Quarter Student Evaluation Questionnaire (4)

On the scale below circle the number which reflects your overall rating of:

| | LOW | | | | HIGH |
|---|---|---|---|---|---|
| Your professor | 1 | 2 | 3 | 4 | 5 |
| Your tutor | 1 | 2 | 3 | 4 | 5 |

Circle the number (or x) which reflects your opinion of the different characteristics of your lecturer and tutor during this course:

| | Professor | | | | | | Tutor | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NO OPINION | LOW | | | | HIGH | NO OPINION | LOW | | | | HIGH |
| Imparts enthusiasm | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |
| Knows subject matter well. | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |
| Is well prepared for class | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |
| Demonstrates practical applications of course material | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |
| Presents material with clarity | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |
| Speaks clearly and distinctly | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |
| Uses the blackboard effectively | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |
| Is available outside class | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |
| Is sensitive to students' level of understanding and is responsive to students' questions | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |
| Has respect for students' opinions | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |
| Provides helpful comments on assignments | x | 1 | 2 | 3 | 4 | 5 | x | 1 | 2 | 3 | 4 | 5 |

Which two aspects of the course and/or professor and/or tutor did you like:

(a) best:

(b) least:

## Instructor Questionnaire

The purpose of this questionnaire is twofold; (1) to collect data on instructor characteristics which may affect student economics comprehension at the end of the course and/or student attitude towards the subject, and (2), to collect instructor opinion of different teaching techniques and plans for adoption and implementation. Please include a curriculum vitae listing publications and current research.

1. College or University: ____________________

2. Surname: ____________________ Initials: __________

3. Rank:
   - Professor................ ______
   - Associate Professor..... ______
   - Assistant Professor..... ______
   - Instructor.............. ______
   - Other (specify). ____________
     ____________________

4. Degree, Institution, and year of award:
   e.g., B.A, Fresno State University, 1958
   M.A, Harvard University, 1960
   Ph.D, University of California at San Diego, 1968
   ____________________
   ____________________

5. Teaching Experience:

| Institution | Dates | Courses |
|---|---|---|
|  |  |  |
|  |  |  |
|  |  |  |

6. Number of Quarters/Semesters in which you previously have taught this course...................... ______

7. In how many sections are you teaching this course currently?.................................... ______

8. For how many hours per week, on average, are you involved in official university activities?......... ______
   e.g., teaching, administration, research, etc.

Instructor Questionnaire (2) . . .

9. How is your time allocated during the current academic year (excluding summer)?

| % Teaching | % Research | % Administration | % Other |
|---|---|---|---|
| ________ | ________ | ________________ | ______ |

10. How was your time allocated during the last academic year?

| % Teaching | % Research | % Administration | % Other |
|---|---|---|---|
| ________ | ________ | ________________ | ______ |

11. How will your time be allocated during the coming summer?

| % Teaching | % Research | % Administration | % Other |
|---|---|---|---|
| ________ | ________ | ________________ | ______ |

12. How was your time allocated during the last summer?

| % Teaching | % Research | % Administration | % Other |
|---|---|---|---|
| ________ | ________ | ________________ | ______ |

## Course Information

1. How many office hours, if any, do you hold for this course? __________

2. What percentage of students in this course come to these office hours?.................................................. __________

3. During 'lecture' hours, what percentage of your time is spent:
   (a) in lecturing?...................... __________
   (b) in class discussion?............... __________

4. During 'tutorial' hour(s), what percentage of time is spent
   (a) in lecturing?...................... __________
   (b) in discussion?..................... __________
   (c) other? Specify ________________________________
   ________________________________________________

5. Allocate 100 points among the teaching methods to reflect the contribution you believe each has made on average to the economics comprehension of students in this course.

| Lectures | Textbook | Readings | Workbook | Tutorials | None of These | TOTAL |
|---|---|---|---|---|---|---|
| | | | | | | 100 |

Instructor Questionnaire (3)

6. Consult the Course Management Plan and indicate, by week, how many hours you expect students to study for this course, excluding lectures and tutorials.

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wk. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | .. | .. | .. | .. | .. | .. |
| Hrs. | | | | | | | | | | | | | | | | |

7. Students will complete the faculty evaluation form below. We intend to run regressions in which overall rating of the instructor will be the dependent variable and in which the listed attributes will be the independent variables. The regression coefficients can be thought of as the weights students attach to instructor attributes.

First, what weights would you assign to each of the instructor attributes listed? (Allocate 100 points). Second, what weights do you think your students will assign to each of the instructor attributes? (Allocate 100 points). Third, what important instructor attributes, if any, do you think have been omitted from the list? Fourth, how much of the variance in overall ratings do you think will be explained by the instructor attributes listed? (i.e, estimate the $R^2$).

| Attributes | 7.1 Your Weights ($\Sigma$ = 100) | 7.2 Expected Student Weights ($\Sigma$ = 100) |
|---|---|---|
| Imparts enthusiasm.................. | | |
| Knows subject matter well........... | | |
| Is well prepared for class.......... | | |
| Demonstrates practical applications of course material.................. | | |
| Presents material with clarity...... | | |
| Speaks clearly and distinctly....... | | |
| Uses blackboard effectively......... | | |
| Is available outside class.......... | | |
| Is sensitive to students' level of understanding and is responsive to students' questions................ | | |
| Has respect for students' opinions.......................... | | |
| Provides helpful comments on assignments........................ | | |
| Totals: | 100 | 100 |

7.3 Important instructor attributes missing from the list above:_______

________________________________________

7.4 Anticipated percentage of variance explained (i.e., estimated $R^2$)___